

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
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Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-78527-9

Client Project/Site: Portland Harbor Pre-Remedial Design

For:

AECOM
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Suite 1600
Seattle, Washington 98101

Attn: Amy Dahl

M. Elaine Walker

Authorized for release by:
9/11/2018 4:25:47 PM

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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: 580-78527-9

Job ID: 580-78527-9

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-78527-9

Receipt

Dioxin

Method(s) 1668A:

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: 580-78527-9

Qualifiers

Dioxin

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
C93	The compound co-eluted with PCB-93
B	Compound was found in the blank and sample.
C90	The compound co-eluted with PCB-90
C98	The compound co-eluted with PCB-98
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.
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
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
*	Isotope Dilution analyte is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

TestAmerica Seattle

Definitions/Glossary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-78527-9

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
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: 580-78527-9

Client Sample ID: PDI-SG-B434

Date Collected: 06/29/18 11:36

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-1

Matrix: Solid

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0046	J	0.0098	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-2	0.0069	J	0.0098	0.00057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-3	ND		0.0098	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-4	0.014	J	0.020	0.0047	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-5	ND		0.0098	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-6	0.0055	J q	0.0098	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-7	ND		0.0098	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-8	0.019	J q	0.020	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-9	ND		0.0098	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-10	ND		0.0098	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-11	0.043	q B	0.020	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-12	0.0045	J q C	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-13	0.0045	J q C12	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-14	ND		0.0098	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-15	0.021		0.0098	0.0038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-16	0.012		0.0098	0.00066	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-17	0.015		0.0098	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-18	0.027	C	0.020	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-19	0.0052	J q	0.0098	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-20	0.070	C B	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-21	0.027	C	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-22	0.022		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-23	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-24	ND		0.0098	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-25	ND		0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-26	0.012	J C	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-27	0.0031	J q	0.0098	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-28	0.070	C20 B	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-29	0.012	J C26	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-30	0.027	C18	0.020	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-31	0.052		0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-32	0.010	q	0.0098	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-33	0.027	C21	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-34	ND		0.0098	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-35	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-36	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-37	0.020		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-38	ND		0.0098	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-39	ND		0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-40	0.036	C	0.029	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-41	0.036	C40	0.029	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-42	0.019		0.0098	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-43	0.0060	J C	0.020	0.00070	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-44	0.091	C B	0.029	0.00066	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-45	0.014	J q C	0.020	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-46	0.0038	J q	0.0098	0.00094	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-47	0.091	C44 B	0.029	0.00066	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-48	0.011		0.0098	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-49	0.060	C	0.020	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B434

Lab Sample ID: 580-78527-1

Date Collected: 06/29/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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	0.020	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-51	0.014	J q C45	0.020	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-52	0.11	B	0.0098	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-53	0.012	J C50	0.020	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-54	ND		0.0098	0.000066	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-55	ND		0.0098	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-56	0.027		0.0098	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-57	ND		0.0098	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-58	ND		0.0098	0.00056	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-59	0.0060	J C	0.029	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-60	0.011		0.0098	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-61	0.12	C B	0.039	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-62	0.0060	J C59	0.029	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-63	0.0026	J	0.0098	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-64	0.029		0.0098	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-65	0.091	C44 B	0.029	0.00066	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-66	0.067	B	0.0098	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-67	ND		0.0098	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-68	0.0026	J	0.0098	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-69	0.060	C49	0.020	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-70	0.12	C61 B	0.039	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-71	0.036	C40	0.029	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-72	ND		0.0098	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-73	0.0060	J C43	0.020	0.00070	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-74	0.12	C61 B	0.039	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-75	0.0060	J C59	0.029	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-76	0.12	C61 B	0.039	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-77	0.0098		0.0098	0.00053	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-78	ND		0.0098	0.00056	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-79	0.0015	J	0.0098	0.00048	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-80	ND		0.0098	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-81	ND		0.0098	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-82	0.011	q	0.0098	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-83	0.13	C	0.020	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-84	0.038		0.0098	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-85	0.037	C	0.029	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-86	0.11	C	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-87	0.11	C86	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-88	0.028	C	0.020	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-89	ND		0.0098	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-90	0.19	C B	0.029	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-91	0.028	C88	0.020	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-92	0.037		0.0098	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-93	0.011	J C	0.020	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-94	ND		0.0098	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-95	0.16	B	0.0098	0.00057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-96	ND		0.0098	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-97	0.11	C86	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-98	0.0060	J q C	0.020	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B434

Lab Sample ID: 580-78527-1

Date Collected: 06/29/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.13	C83	0.020	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-100	0.011	J C93	0.020	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-101	0.19	C90 B	0.029	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-102	0.0060	J q C98	0.020	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-103	0.0049	J q	0.0098	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-104	ND		0.0098	0.00040	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-105	0.067	B	0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-106	ND		0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-107	0.019		0.0098	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-108	0.0087	J C	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-109	0.11	C86	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-110	0.21	C B	0.020	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-111	ND		0.0098	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-112	ND		0.0098	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-113	0.19	C90 B	0.029	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-114	ND		0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-115	0.21	C110 B	0.020	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-116	0.037	C85	0.029	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-117	0.037	C85	0.029	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-118	0.16	B	0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-119	0.11	C86	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-120	ND		0.0098	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-121	ND		0.0098	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-122	ND		0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-123	0.0037	J	0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-124	0.0087	J C108	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-125	0.11	C86	0.059	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-126	ND		0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-127	ND		0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-128	0.056	C	0.020	0.0044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-129	0.41	C B	0.039	0.0046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-130	0.026		0.0098	0.0060	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-131	ND		0.0098	0.0063	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-132	0.11		0.0098	0.0059	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-133	ND		0.0098	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-134	ND	C	0.020	0.0060	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-135	0.11	C	0.020	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-136	0.039		0.0098	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-137	0.017		0.0098	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-138	0.41	C129 B	0.039	0.0046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-139	ND	C	0.020	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-140	ND	C139	0.020	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-141	0.072		0.0098	0.0053	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-142	ND		0.0098	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-143	ND	C134	0.020	0.0060	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-144	0.012	q	0.0098	0.00065	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-145	ND		0.0098	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-146	0.067		0.0098	0.0050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-147	0.34	C B	0.020	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B434

Lab Sample ID: 580-78527-1

Date Collected: 06/29/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.00069	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-149	0.34	C147 B	0.020	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-150	ND		0.0098	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-151	0.11	C135	0.020	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-152	ND		0.0098	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-153	0.33	C B	0.020	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-154	0.0070	J q	0.0098	0.00056	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-155	ND		0.0098	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-156	0.037	C	0.020	0.0054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-157	0.037	C156	0.020	0.0054	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-158	0.037		0.0098	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-159	ND		0.0098	0.0038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-160	0.41	C129 B	0.039	0.0046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-161	ND		0.0098	0.0038	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-162	ND		0.0098	0.0037	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-163	0.41	C129 B	0.039	0.0046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-164	0.030		0.0098	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-165	ND		0.0098	0.0043	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-166	0.056	C128	0.020	0.0044	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-167	0.011	q	0.0098	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-168	0.33	C153 B	0.020	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-169	ND		0.0098	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-170	0.11		0.0098	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-171	0.035	C	0.020	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-172	0.017	q	0.0098	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-173	0.035	C171	0.020	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-174	0.12		0.0098	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-175	ND		0.0098	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-176	0.015		0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-177	0.070		0.0098	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-178	0.025		0.0098	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-179	0.055	B	0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-180	0.22	C	0.020	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-181	ND		0.0098	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-182	ND		0.0098	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-183	0.082	C	0.020	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-184	ND		0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-185	0.082	C183	0.020	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-186	ND		0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-187	0.15		0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-188	ND		0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-189	ND		0.0098	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-190	0.021		0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-191	ND		0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-192	ND		0.0098	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-193	0.22	C180	0.020	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-194	0.064		0.0098	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-195	0.034		0.0098	0.0056	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-196	0.027	q	0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B434

Lab Sample ID: 580-78527-1

Date Collected: 06/29/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-198	0.059	C	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-199	0.059	C198	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-200	0.0048	J q	0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-201	0.0084	J q	0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-202	0.016		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-203	0.035		0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-204	ND		0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-205	ND		0.0098	0.0043	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-206	0.022	q	0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-207	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-208	0.010	q	0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
PCB-209	0.030		0.0098	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 17:35	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	66		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-3L	68		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-4L	75		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-15L	73		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-19L	95		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-37L	81		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-54L	76		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-77L	74		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-81L	75		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-104L	78		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-105L	85		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-114L	86		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-118L	87		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-123L	86		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-126L	76		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-155L	81		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-156L	72	C	30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-157L	72	C156	30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-167L	79		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-169L	76		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-170L	77		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-188L	94		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-189L	77		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-202L	100		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-205L	68		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-206L	77		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-208L	84		30 - 140				08/24/18 11:00	09/06/18 17:35	1
PCB-209L	74		30 - 140				08/24/18 11:00	09/06/18 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				08/24/18 11:00	09/06/18 17:35	1
PCB-111L	87		40 - 125				08/24/18 11:00	09/06/18 17:35	1
PCB-178L	101		40 - 125				08/24/18 11:00	09/06/18 17:35	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B435

Date Collected: 06/29/18 13:43

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-2

Matrix: Solid

Percent Solids: 51.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-2	0.0053	J	0.0098	0.00033	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-3	0.0015	J q B	0.0098	0.00037	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-4	0.0087	J q	0.020	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-5	ND		0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-6	0.0034	J	0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-7	ND	q	0.0098	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-8	0.011	J	0.020	0.0016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-9	ND		0.0098	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-10	ND		0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-11	0.049	B	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-12	0.0026	J q C	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-13	0.0026	J q C12	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-14	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-15	0.012		0.0098	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-16	0.0092	J	0.0098	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-17	0.010		0.0098	0.00033	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-18	0.017	J q C	0.020	0.00029	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-19	0.0053	J	0.0098	0.00040	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-20	0.045	C B	0.020	0.00085	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-21	0.017	J C	0.020	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-22	0.011	q	0.0098	0.00087	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-23	ND		0.0098	0.00087	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-24	ND		0.0098	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-25	0.0043	J q	0.0098	0.00079	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-26	0.0082	J C	0.020	0.00084	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-27	0.0021	J q	0.0098	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-28	0.045	C20 B	0.020	0.00085	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-29	0.0082	J C26	0.020	0.00084	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-30	0.017	J q C18	0.020	0.00029	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-31	0.035		0.020	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-32	0.0085	J	0.0098	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-33	0.017	J C21	0.020	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-34	ND		0.0098	0.00090	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-35	0.0014	J q	0.0098	0.00088	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-36	ND		0.0098	0.00084	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-37	0.013		0.0098	0.00087	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-38	ND		0.0098	0.00091	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-39	ND		0.0098	0.00081	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-40	0.025	J C	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-41	0.025	J C40	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-42	0.011		0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-43	0.0016	J C	0.020	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-44	0.068	C B	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-45	0.011	J C	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-46	0.0028	J q	0.0098	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-47	0.068	C44 B	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-48	0.0080	J q	0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-49	0.051	C	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B435

Lab Sample ID: 580-78527-2

Date Collected: 06/29/18 13:43

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0098	J q C	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-51	0.011	J C45	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-52	0.087	B	0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-53	0.0098	J q C50	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-54	ND		0.0098	0.000020	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-55	0.0011	J q	0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-56	0.017		0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-57	ND		0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-58	ND		0.0098	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-59	0.0037	J q C	0.029	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-60	0.0083	J	0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-61	0.088	C B	0.039	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-62	0.0037	J q C59	0.029	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-63	0.0017	J q	0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-64	0.020		0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-65	0.068	C44 B	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-66	0.052	B	0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-67	0.0013	J	0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-68	0.0017	J q	0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-69	0.051	C49	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-70	0.088	C61 B	0.039	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-71	0.025	J C40	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-72	ND		0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-73	0.0016	J C43	0.020	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-74	0.088	C61 B	0.039	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-75	0.0037	J q C59	0.029	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-76	0.088	C61 B	0.039	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-77	0.0060	J	0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-78	ND		0.0098	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-79	0.0015	J	0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-80	ND		0.0098	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-81	ND		0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-82	0.012		0.0098	0.00040	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-83	0.10	C	0.020	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-84	0.025		0.0098	0.00040	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-85	0.026	J C	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-86	0.091	C	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-87	0.091	C86	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-88	0.024	C	0.020	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-89	ND		0.0098	0.00039	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-90	0.17	C B	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-91	0.024	C88	0.020	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-92	0.034		0.0098	0.00034	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-93	0.0048	J C	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-94	ND		0.0098	0.00039	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-95	0.15	B	0.0098	0.00038	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-96	ND		0.0098	0.00029	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-97	0.091	C86	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-98	0.0056	J q C	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B435

Lab Sample ID: 580-78527-2

Date Collected: 06/29/18 13:43

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.10	C83	0.020	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-100	0.0048	J C93	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-101	0.17	C90 B	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-102	0.0056	J q C98	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-103	0.0052	J	0.0098	0.00035	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-104	ND		0.0098	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-105	0.049	B	0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-106	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-107	0.0093	J q	0.0098	0.0016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-108	0.0067	J C	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-109	0.091	C86	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-110	0.17	C B	0.020	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-111	ND		0.0098	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-112	0.00053	J q	0.0098	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-113	0.17	C90 B	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-114	ND		0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-115	0.17	C110 B	0.020	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-116	0.026	J C85	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-117	0.026	J C85	0.029	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-118	0.13	B	0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-119	0.091	C86	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-120	ND		0.0098	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-121	ND		0.0098	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-122	ND		0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-123	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-124	0.0067	J C108	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-125	0.091	C86	0.059	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-126	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-127	ND		0.0098	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-128	0.051	C	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-129	0.47	C B	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-130	0.020	q	0.0098	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-131	ND		0.0098	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-132	0.12		0.0098	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-133	0.011		0.0098	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-134	0.017	J C	0.020	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-135	0.16	C	0.020	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-136	0.050		0.0098	0.00020	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-137	0.0082	J q	0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-138	0.47	C129 B	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-139	0.0057	J q C	0.020	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-140	0.0057	J q C139	0.020	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-141	0.090		0.0098	0.0025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-142	ND		0.0098	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-143	0.017	J C134	0.020	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-144	0.011	q	0.0098	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-145	ND		0.0098	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-146	0.088		0.0098	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-147	0.45	C B	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B435

Lab Sample ID: 580-78527-2

Date Collected: 06/29/18 13:43

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0011	J q	0.0098	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-149	0.45	C147 B	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-150	0.0014	J	0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-151	0.16	C135	0.020	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-152	ND		0.0098	0.00020	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-153	0.41	C B	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-154	0.0073	J q	0.0098	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-155	ND		0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-156	0.031	C	0.020	0.0025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-157	0.031	C156	0.020	0.0025	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-158	0.036		0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-159	0.0062	J	0.0098	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-160	0.47	C129 B	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-161	ND		0.0098	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-162	ND		0.0098	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-163	0.47	C129 B	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-164	0.032		0.0098	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-165	ND		0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-166	0.051	C128	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-167	0.014		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-168	0.41	C153 B	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-169	ND		0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-170	0.17		0.0098	0.0016	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-171	0.050	C	0.020	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-172	0.025		0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-173	0.050	C171	0.020	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-174	0.16		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-175	0.0075	J	0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-176	0.018	q	0.0098	0.00089	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-177	0.099		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-178	0.041		0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-179	0.072	B	0.0098	0.00094	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-180	0.34	C	0.020	0.00098	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-181	ND		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-182	ND		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-183	0.11	C	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-184	ND		0.0098	0.00096	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-185	0.11	C183	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-186	ND		0.0098	0.00093	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-187	0.21		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-188	ND		0.0098	0.00077	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-189	ND		0.0098	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-190	0.029		0.0098	0.00085	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-191	0.0062	J	0.0098	0.00088	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-192	ND		0.0098	0.00099	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-193	0.34	C180	0.020	0.00098	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-194	0.079		0.0098	0.0034	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-195	0.033		0.0098	0.0038	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-196	0.037		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B435

Lab Sample ID: 580-78527-2

Date Collected: 06/29/18 13:43

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0027	J q	0.0098	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-198	0.076	C	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-199	0.076	C198	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-200	0.0095	J	0.0098	0.00074	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-201	0.0074	J q	0.0098	0.00075	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-202	0.014	q	0.0098	0.00084	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-203	0.049		0.0098	0.00098	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-204	ND		0.0098	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-205	ND		0.0098	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-206	0.037		0.0098	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-207	ND		0.0098	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-208	0.012		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1
PCB-209	0.037		0.0098	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 19:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	73		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-3L	74		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-4L	83		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-15L	80		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-19L	87	q	30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-37L	90		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-54L	92		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-77L	87		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-81L	85		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-104L	84		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-105L	93		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-114L	93		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-118L	92		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-123L	92		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-126L	85		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-155L	90		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-156L	78	C	30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-157L	78	C156	30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-167L	88		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-169L	85		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-170L	84		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-188L	101		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-189L	83		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-202L	113		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-205L	75		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-206L	82		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-208L	87		30 - 140	08/24/18 11:00	09/05/18 19:00	1
PCB-209L	78		30 - 140	08/24/18 11:00	09/05/18 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125	08/24/18 11:00	09/05/18 19:00	1
PCB-111L	88		40 - 125	08/24/18 11:00	09/05/18 19:00	1
PCB-178L	108		40 - 125	08/24/18 11:00	09/05/18 19:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B441

Date Collected: 06/29/18 15:20

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-3

Matrix: Solid

Percent Solids: 62.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0021	J	0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-2	0.0064	J	0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-3	0.0034	J B	0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-4	ND		0.019	0.0041	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-5	ND		0.0097	0.0033	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-6	ND		0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-7	ND		0.0097	0.0030	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-8	0.0039	J q	0.019	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-9	ND		0.0097	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-10	ND		0.0097	0.0033	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-11	0.021	q B	0.019	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-12	ND	C	0.019	0.0030	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-13	ND	C12	0.019	0.0030	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-14	ND		0.0097	0.0025	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-15	ND		0.0097	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-16	ND		0.0097	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-17	0.0025	J q	0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-18	0.0096	J C	0.019	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-19	ND		0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-20	0.020	C B	0.019	0.00056	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-21	0.0061	J C	0.019	0.00055	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-22	0.0057	J	0.0097	0.00057	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-23	ND		0.0097	0.00057	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-24	ND		0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-25	0.0018	J	0.0097	0.00052	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-26	0.0036	J C	0.019	0.00055	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-27	ND		0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-28	0.020	C20 B	0.019	0.00056	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-29	0.0036	J C26	0.019	0.00055	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-30	0.0096	J C18	0.019	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-31	0.015	J	0.019	0.00054	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-32	0.0033	J	0.0097	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-33	0.0061	J C21	0.019	0.00055	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-34	ND		0.0097	0.00059	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-35	ND		0.0097	0.00057	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-36	ND		0.0097	0.00055	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-37	0.0062	J	0.0097	0.00057	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-38	ND		0.0097	0.00059	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-39	ND		0.0097	0.00053	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-40	0.0091	J q C	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-41	0.0091	J q C40	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-42	0.0059	J	0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-43	ND	C	0.019	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-44	0.027	J C B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-45	0.0023	J q C	0.019	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-46	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-47	0.027	J C44 B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-48	0.0036	J	0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-49	0.024	C	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B441

Lab Sample ID: 580-78527-3

Date Collected: 06/29/18 15:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 62.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0024	J q C	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-51	0.0023	J q C45	0.019	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-52	0.044	B	0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-53	0.0024	J q C50	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-54	ND		0.0097	0.000031	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-55	0.00051	J q	0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-56	0.0085	J q	0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-57	ND		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-58	ND		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-59	0.0013	J q C	0.029	0.000099	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-60	0.0037	J q	0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-61	0.046	C B	0.039	0.000098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-62	0.0013	J q C59	0.029	0.000099	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-63	0.00080	J q	0.0097	0.000095	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-64	0.0096	J	0.0097	0.000094	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-65	0.027	J C44 B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-66	0.027	B	0.0097	0.000097	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-67	ND		0.0097	0.000090	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-68	ND		0.0097	0.000092	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-69	0.024	C49	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-70	0.046	C61 B	0.039	0.000098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-71	0.0091	J q C40	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-72	0.00087	J q	0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-73	ND	C43	0.019	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-74	0.046	C61 B	0.039	0.000098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-75	0.0013	J q C59	0.029	0.000099	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-76	0.046	C61 B	0.039	0.000098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-77	0.0035	J q	0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-78	ND		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-79	ND		0.0097	0.000091	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-80	ND		0.0097	0.000089	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-81	ND		0.0097	0.000094	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-82	0.0044	J q	0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-83	0.036	C	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-84	0.011	q	0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-85	0.014	J C	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-86	0.029	J q C	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-87	0.029	J q C86	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-88	0.015	J C	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-89	ND		0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-90	0.061	C B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-91	0.015	J C88	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-92	0.011	q	0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-93	0.0020	J C	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-94	ND		0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-95	0.059	B	0.0097	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-96	ND		0.0097	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-97	0.029	J q C86	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-98	0.0015	J q C	0.019	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B441

Lab Sample ID: 580-78527-3

Date Collected: 06/29/18 15:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 62.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.036	C83	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-100	0.0020	J C93	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-101	0.061	C90 B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-102	0.0015	J q C98	0.019	0.00013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-103	0.0021	J q	0.0097	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-104	ND		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-105	0.019	B	0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-106	ND		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-107	0.0044	J	0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-108	ND	C	0.019	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-109	0.029	J q C86	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-110	0.066	C B	0.019	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-111	ND		0.0097	0.000097	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-112	ND		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-113	0.061	C90 B	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-114	ND		0.0097	0.00095	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-115	0.066	C110 B	0.019	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-116	0.014	J C85	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-117	0.014	J C85	0.029	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-118	0.050	B	0.0097	0.00098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-119	0.029	J q C86	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-120	ND		0.0097	0.000098	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-121	ND		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-122	ND		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-123	ND		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-124	ND	C108	0.019	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-125	0.029	J q C86	0.058	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-126	ND		0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-127	ND		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-128	0.015	J C	0.019	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-129	0.098	C B	0.039	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-130	0.0080	J	0.0097	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-131	ND		0.0097	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-132	0.025		0.0097	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-133	ND		0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-134	ND	C	0.019	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-135	0.030	C	0.019	0.000062	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-136	0.0077	J q	0.0097	0.000044	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-137	0.0045	J	0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-138	0.098	C129 B	0.039	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-139	ND	C	0.019	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-140	ND	C139	0.019	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-141	0.014	q	0.0097	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-142	ND		0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-143	ND	C134	0.019	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-144	0.0025	J	0.0097	0.000056	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-145	ND		0.0097	0.000042	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-146	0.018		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-147	0.074	C B	0.019	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B441

Lab Sample ID: 580-78527-3

Date Collected: 06/29/18 15:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 62.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0097	0.000060	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-149	0.074	C147 B	0.019	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-150	ND		0.0097	0.000041	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-151	0.030	C135	0.019	0.000062	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-152	ND		0.0097	0.000044	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-153	0.083	C B	0.019	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-154	0.0012	J	0.0097	0.000048	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-155	ND		0.0097	0.000041	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-156	0.0053	J q C	0.019	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-157	0.0053	J q C156	0.019	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-158	0.0099		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-159	ND		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-160	0.098	C129 B	0.039	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-161	ND		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-162	ND		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-163	0.098	C129 B	0.039	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-164	0.0049	J	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-165	ND		0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-166	0.015	J C128	0.019	0.0015	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-167	0.0033	J	0.0097	0.00094	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-168	0.083	C153 B	0.019	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-169	ND		0.0097	0.00092	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-170	0.028		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-171	0.0067	J q C	0.019	0.00096	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-172	0.0042	J	0.0097	0.00095	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-173	0.0067	J q C171	0.019	0.00096	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-174	0.022		0.0097	0.00089	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-175	ND		0.0097	0.00087	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-176	0.0018	J q	0.0097	0.00065	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-177	0.017		0.0097	0.00092	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-178	0.0046	J q	0.0097	0.00094	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-179	0.011	B	0.0097	0.00069	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-180	0.053	C	0.019	0.00073	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-181	ND		0.0097	0.00086	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-182	ND		0.0097	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-183	0.015	J C	0.019	0.00085	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-184	ND		0.0097	0.00071	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-185	0.015	J C183	0.019	0.00085	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-186	ND		0.0097	0.00069	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-187	0.030	q	0.0097	0.00080	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-188	ND		0.0097	0.00061	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-189	ND		0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-190	0.0047	J q	0.0097	0.00063	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-191	ND		0.0097	0.00065	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-192	ND		0.0097	0.00073	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-193	0.053	C180	0.019	0.00073	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-194	0.011	q	0.0097	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-195	ND		0.0097	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-196	0.0060	J	0.0097	0.00062	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B441

Lab Sample ID: 580-78527-3

Date Collected: 06/29/18 15:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 62.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0097	0.00047	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-198	0.015	J C	0.019	0.00063	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-199	0.015	J C198	0.019	0.00063	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-200	ND		0.0097	0.00042	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-201	0.00064	J q	0.0097	0.00043	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-202	0.0027	J q	0.0097	0.00048	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-203	0.0067	J q	0.0097	0.00056	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-204	ND		0.0097	0.00048	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-205	ND		0.0097	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-206	0.0081	J	0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-207	ND		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-208	0.0037	J	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
PCB-209	0.011	q	0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/05/18 20:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	69		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-3L	68		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-4L	77		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-15L	77		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-19L	86		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-37L	84		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-54L	87		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-77L	80		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-81L	82		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-104L	80		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-105L	88		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-114L	90		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-118L	85		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-123L	89		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-126L	84		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-155L	89		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-156L	82	C	30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-157L	82	C156	30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-167L	85		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-169L	88		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-170L	82		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-188L	89		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-189L	84		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-202L	102		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-205L	72		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-206L	78		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-208L	86		30 - 140				08/24/18 11:00	09/05/18 20:01	1
PCB-209L	72		30 - 140				08/24/18 11:00	09/05/18 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				08/24/18 11:00	09/05/18 20:01	1
PCB-111L	90		40 - 125				08/24/18 11:00	09/05/18 20:01	1
PCB-178L	99		40 - 125				08/24/18 11:00	09/05/18 20:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B442

Date Collected: 06/29/18 16:22

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-4

Matrix: Solid

Percent Solids: 47.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-2	0.0070	J q	0.010	0.00029	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-3	ND		0.010	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-4	0.0043	J q	0.021	0.0040	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-5	ND		0.010	0.0032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-6	0.0029	J	0.010	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-7	ND		0.010	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-8	0.0073	J q	0.021	0.0026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-9	ND		0.010	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-10	ND		0.010	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-11	0.045	B	0.021	0.0027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-12	ND	q C	0.021	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-13	ND	q C12	0.021	0.0028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-14	ND		0.010	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-15	0.015	q	0.010	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-16	0.0046	J q	0.010	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-17	0.0066	J q	0.010	0.00025	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-18	0.011	J q C	0.021	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-19	0.0035	J	0.010	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-20	0.048	C B	0.021	0.00081	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-21	0.014	J C	0.021	0.00079	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-22	0.015		0.010	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-23	ND		0.010	0.00082	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-24	ND		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-25	0.0041	J q	0.010	0.00075	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-26	0.0068	J q C	0.021	0.00080	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-27	0.0016	J	0.010	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-28	0.048	C20 B	0.021	0.00081	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-29	0.0068	J q C26	0.021	0.00080	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-30	0.011	J q C18	0.021	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-31	0.036		0.021	0.00079	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-32	0.0058	J	0.010	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-33	0.014	J C21	0.021	0.00079	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-34	ND		0.010	0.00086	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-35	0.0028	J	0.010	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-36	ND		0.010	0.00080	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-37	0.018		0.010	0.00083	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-38	ND		0.010	0.00086	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-39	ND		0.010	0.00077	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-40	0.024	J q C	0.031	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-41	0.024	J q C40	0.031	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-42	0.014	q	0.010	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-43	0.0017	J q C	0.021	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-44	0.062	C B	0.031	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-45	0.0091	J C	0.021	0.00033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-46	0.0040	J q	0.010	0.00040	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-47	0.062	C44 B	0.031	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-48	0.0077	J	0.010	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-49	0.045	C	0.021	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B442

Lab Sample ID: 580-78527-4

Date Collected: 06/29/18 16:22

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 47.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0064	J C	0.021	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-51	0.0091	J C45	0.021	0.00033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-52	0.091	B	0.010	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-53	0.0064	J C50	0.021	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-54	ND		0.010	0.000027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-55	ND		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-56	0.025		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-57	ND		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-58	ND		0.010	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-59	0.0031	J q C	0.031	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-60	0.012		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-61	0.12	C B	0.042	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-62	0.0031	J q C59	0.031	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-63	0.0025	J q	0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-64	0.026		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-65	0.062	C44 B	0.031	0.00028	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-66	0.067	B	0.010	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-67	ND		0.010	0.00020	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-68	ND		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-69	0.045	C49	0.021	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-70	0.12	C61 B	0.042	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-71	0.024	J q C40	0.031	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-72	ND		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-73	0.0017	J q C43	0.021	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-74	0.12	C61 B	0.042	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-75	0.0031	J q C59	0.031	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-76	0.12	C61 B	0.042	0.00022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-77	0.0079	J q	0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-78	ND		0.010	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-79	ND		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-80	ND		0.010	0.00020	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-81	ND		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-82	0.017	q	0.010	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-83	0.11	C	0.021	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-84	0.037		0.010	0.00019	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-85	0.033	C	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-86	0.12	C	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-87	0.12	C86	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-88	0.024	C	0.021	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-89	ND		0.010	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-90	0.37	C B	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-91	0.024	C88	0.021	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-92	0.040	q	0.010	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-93	0.0023	J q C	0.021	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-94	ND		0.010	0.00018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-95	0.29	B	0.010	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-96	ND		0.010	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-97	0.12	C86	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-98	0.0045	J q C	0.021	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B442

Lab Sample ID: 580-78527-4

Date Collected: 06/29/18 16:22

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 47.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.11	C83	0.021	0.00017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-100	0.0023	J q C93	0.021	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-101	0.37	C90 B	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-102	0.0045	J q C98	0.021	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-103	0.0026	J	0.010	0.00016	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-104	ND		0.010	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-105	0.073	B	0.010	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-106	ND		0.010	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-107	0.013	q	0.010	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-108	0.0062	J q C	0.021	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-109	0.12	C86	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-110	0.28	C B	0.021	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-111	ND		0.010	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-112	ND		0.010	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-113	0.37	C90 B	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-114	0.0049	J	0.010	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-115	0.28	C110 B	0.021	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-116	0.033	C85	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-117	0.033	C85	0.031	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-118	0.17	B	0.010	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-119	0.12	C86	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-120	ND		0.010	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-121	ND		0.010	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-122	ND		0.010	0.0020	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-123	ND		0.010	0.0017	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-124	0.0062	J q C108	0.021	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-125	0.12	C86	0.063	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-126	ND		0.010	0.0019	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-127	ND		0.010	0.0018	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-128	0.13	C	0.021	0.0037	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-129	1.7	C B	0.042	0.0038	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-130	0.059		0.010	0.0050	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-131	ND		0.010	0.0052	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-132	0.46		0.010	0.0049	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-133	ND		0.010	0.0048	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-134	0.075	C	0.021	0.0050	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-135	0.71	C	0.021	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-136	0.21		0.010	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-137	ND		0.010	0.0043	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-138	1.7	C129 B	0.042	0.0038	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-139	ND	C	0.021	0.0042	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-140	ND	C139	0.021	0.0042	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-141	0.49		0.010	0.0044	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-142	ND		0.010	0.0047	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-143	0.075	C134	0.021	0.0050	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-144	0.079		0.010	0.00014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-145	ND		0.010	0.00010	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-146	0.23		0.010	0.0042	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-147	1.9	C B	0.021	0.0048	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B442

Lab Sample ID: 580-78527-4

Date Collected: 06/29/18 16:22

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 47.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.010	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-149	1.9	C147 B	0.021	0.0048	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-150	ND		0.010	0.000099	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-151	0.71	C135	0.021	0.00015	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-152	ND		0.010	0.00011	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-153	1.7	C B	0.021	0.0033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-154	0.017		0.010	0.00012	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-155	ND		0.010	0.000099	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-156	0.079	C	0.021	0.0045	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-157	0.079	C156	0.021	0.0045	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-158	0.13		0.010	0.0030	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-159	0.024		0.010	0.0032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-160	1.7	C129 B	0.042	0.0038	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-161	ND		0.010	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-162	ND		0.010	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-163	1.7	C129 B	0.042	0.0038	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-164	0.11		0.010	0.0033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-165	ND		0.010	0.0036	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-166	0.13	C128	0.021	0.0037	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-167	0.032		0.010	0.0022	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-168	1.7	C153 B	0.021	0.0033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-169	ND		0.010	0.0023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-170	0.89		0.010	0.00041	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-171	0.27	C	0.021	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-172	0.16		0.010	0.00035	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-173	0.27	C171	0.021	0.00036	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-174	1.2		0.010	0.00033	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-175	0.034		0.010	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-176	0.13		0.010	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-177	0.62		0.010	0.00034	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-178	0.23		0.010	0.00035	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-179	0.49	B	0.010	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-180	2.1	C	0.021	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-181	ND		0.010	0.00032	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-182	ND		0.010	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-183	0.67	C	0.021	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-184	ND		0.010	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-185	0.67	C183	0.021	0.00031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-186	ND		0.010	0.00026	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-187	1.3		0.010	0.00030	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-188	ND		0.010	0.00021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-189	0.020	q	0.010	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-190	0.16		0.010	0.00023	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-191	0.033		0.010	0.00024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-192	ND		0.010	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-193	2.1	C180	0.021	0.00027	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-194	0.44		0.010	0.0029	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-195	0.23		0.010	0.0031	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-196	0.20		0.010	0.00076	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B442

Lab Sample ID: 580-78527-4

Date Collected: 06/29/18 16:22

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 47.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.016		0.010	0.00058	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-198	0.48	C	0.021	0.00077	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-199	0.48	C198	0.021	0.00077	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-200	0.055		0.010	0.00052	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-201	0.055		0.010	0.00053	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-202	0.095		0.010	0.00059	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-203	0.26		0.010	0.00069	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-204	ND		0.010	0.00058	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-205	0.024		0.010	0.0024	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-206	0.094		0.010	0.0021	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-207	0.012	q	0.010	0.0014	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-208	0.024	q	0.010	0.0013	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1
PCB-209	0.030	q	0.010	0.00062	ng/g	☼	08/24/18 11:00	09/05/18 21:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	69		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-3L	69		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-4L	80		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-15L	78		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-19L	94		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-37L	85		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-54L	86		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-77L	83		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-81L	84		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-104L	81		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-105L	91		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-114L	92		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-118L	91		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-123L	91		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-126L	84		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-155L	90		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-156L	81	C	30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-157L	81	C156	30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-167L	89		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-169L	83		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-170L	84		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-188L	100		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-189L	88		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-202L	112		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-205L	74		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-206L	82		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-208L	94		30 - 140	08/24/18 11:00	09/05/18 21:03	1
PCB-209L	76		30 - 140	08/24/18 11:00	09/05/18 21:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	91		40 - 125	08/24/18 11:00	09/05/18 21:03	1
PCB-111L	88		40 - 125	08/24/18 11:00	09/05/18 21:03	1
PCB-178L	107		40 - 125	08/24/18 11:00	09/05/18 21:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B439

Lab Sample ID: 580-78527-5

Date Collected: 06/29/18 11:51

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 55.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0065	J q	0.0099	0.00060	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-2	ND		0.0099	0.00066	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-3	ND		0.0099	0.00070	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-4	0.012	J q	0.020	0.0050	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-5	ND		0.0099	0.0040	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-6	0.0071	J q	0.0099	0.0035	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-7	ND		0.0099	0.0036	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-8	0.012	J q	0.020	0.0032	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-9	ND		0.0099	0.0037	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-10	ND		0.0099	0.0039	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-11	0.021	B	0.020	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-12	0.0041	J C q	0.020	0.0035	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-13	0.0041	J C12 q	0.020	0.0035	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-14	ND		0.0099	0.0030	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-15	0.0096	J q	0.0099	0.0037	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-16	0.012	q	0.0099	0.00039	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-17	0.025		0.0099	0.00035	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-18	0.034	C	0.020	0.00031	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-19	0.014		0.0099	0.00043	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-20	0.064	C B	0.020	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-21	0.040	C	0.020	0.0015	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-22	0.016		0.0099	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-23	ND		0.0099	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-24	0.00098	J q	0.0099	0.00030	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-25	0.0058	J q	0.0099	0.0015	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-26	0.015	J C	0.020	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-27	0.0031	J	0.0099	0.00026	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-28	0.064	B C20	0.020	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-29	0.015	J C26	0.020	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-30	0.034	C18	0.020	0.00031	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-31	0.054		0.020	0.0015	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-32	0.011		0.0099	0.00025	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-33	0.040	C21	0.020	0.0015	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-34	ND		0.0099	0.0017	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-35	ND		0.0099	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-36	ND		0.0099	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-37	0.015		0.0099	0.0016	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-38	ND		0.0099	0.0017	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-39	ND		0.0099	0.0015	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-40	0.075	C	0.030	0.00034	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-41	0.075	C40	0.030	0.00034	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-42	0.048		0.0099	0.00034	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-43	0.011	J C	0.020	0.00032	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-44	0.30	C B	0.030	0.00030	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-45	0.029	C	0.020	0.00036	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-46	0.0093	J q	0.0099	0.00043	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-47	0.30	B C44	0.030	0.00030	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-48	0.020	q	0.0099	0.00034	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1
PCB-49	0.24	C	0.020	0.00028	ng/g	✱	08/24/18 11:00	09/06/18 18:36	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B439

Lab Sample ID: 580-78527-5

Date Collected: 06/29/18 11:51

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 55.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.032	C	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-51	0.029	C45	0.020	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-52	0.58	B	0.0099	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-53	0.032	C50	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-54	0.0066	J	0.0099	0.000028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-55	0.0048	J	0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-56	0.094		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-57	ND		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-58	0.0042	J q	0.0099	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-59	0.015	J C	0.030	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-60	0.020		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-61	0.57	C B	0.040	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-62	0.015	J C59	0.030	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-63	0.011	q	0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-64	0.079		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-65	0.30	B C44	0.030	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-66	0.23	B	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-67	0.0055	J q	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-68	0.012	q	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-69	0.24	C49	0.020	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-70	0.57	C61 B	0.040	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-71	0.075	C40	0.030	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-72	0.022		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-73	0.011	J C43	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-74	0.57	C61 B	0.040	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-75	0.015	J C59	0.030	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-76	0.57	C61 B	0.040	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-77	0.0085	J q	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-78	ND		0.0099	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-79	0.010		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-80	ND		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-81	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-82	0.10		0.0099	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-83	0.83	C	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-84	0.29		0.0099	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-85	0.18	C	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-86	0.72	C	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-87	0.72	C86	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-88	0.20	C	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-89	ND		0.0099	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-90	1.5	C B	0.030	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-91	0.20	C88	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-92	0.33		0.0099	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-93	0.082	C	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-94	ND		0.0099	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-95	1.3	B	0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-96	0.015	q	0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-97	0.72	C86	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-98	0.049	C	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B439

Lab Sample ID: 580-78527-5

Date Collected: 06/29/18 11:51

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 55.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.83	C83	0.020	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-100	0.082	C93	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-101	1.5	B C90	0.030	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-102	0.049	C98	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-103	0.035		0.0099	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-104	ND		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-105	0.30	B	0.0099	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-106	ND		0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-107	0.14		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-108	0.036	C	0.020	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-109	0.72	C86	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-110	1.4	C B	0.020	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-111	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-112	ND		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-113	1.5	B C90	0.030	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-114	0.012	q	0.0099	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-115	1.4	B C110	0.020	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-116	0.18	C85	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-117	0.18	C85	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-118	0.95	B	0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-119	0.72	C86	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-120	0.0062	J q	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-121	ND		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-122	0.0073	J q	0.0099	0.0033	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-123	0.0092	J q	0.0099	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-124	0.036	C108	0.020	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-125	0.72	C86	0.059	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-126	ND		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-127	ND		0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-128	0.27	C	0.020	0.0077	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-129	2.4	C B	0.040	0.0079	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-130	0.16	G	0.010	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-131	0.027	G	0.011	0.011	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-132	0.73	G	0.010	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-133	0.053		0.0099	0.0099	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-134	0.12	C	0.020	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-135	1.1	C	0.020	0.00069	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-136	0.36		0.0099	0.00050	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-137	0.052	q	0.0099	0.0089	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-138	2.4	B C129	0.040	0.0079	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-139	0.038	C	0.020	0.0088	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-140	0.038	C139	0.020	0.0088	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-141	0.46		0.0099	0.0092	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-142	ND		0.0099	0.0099	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-143	0.12	C134	0.020	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-144	0.10		0.0099	0.00063	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-145	ND		0.0099	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-146	0.59		0.0099	0.0087	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-147	2.9	C B	0.020	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B439

Lab Sample ID: 580-78527-5

Date Collected: 06/29/18 11:51

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 55.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0029	J q	0.0099	0.00067	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-149	2.9	B C147	0.020	0.010	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-150	0.0094	J	0.0099	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-151	1.1	C135	0.020	0.00069	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-152	0.0021	J q	0.0099	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-153	2.6	C B	0.020	0.0069	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-154	0.077		0.0099	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-155	ND		0.0099	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-156	0.14	C q	0.020	0.0096	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-157	0.14	C156 q	0.020	0.0096	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-158	0.16		0.0099	0.0062	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-159	0.029		0.0099	0.0066	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-160	2.4	B C129	0.040	0.0079	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-161	ND		0.0099	0.0065	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-162	ND		0.0099	0.0065	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-163	2.4	B C129	0.040	0.0079	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-164	0.16		0.0099	0.0069	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-165	ND		0.0099	0.0074	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-166	0.27	C128	0.020	0.0077	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-167	0.054		0.0099	0.0047	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-168	2.6	B C153	0.020	0.0069	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-169	0.019	q	0.0099	0.0046	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-170	0.83		0.0099	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-171	0.28	C	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-172	0.18		0.0099	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-173	0.28	C171	0.020	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-174	1.2		0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-175	0.050		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-176	0.17		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-177	0.65		0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-178	0.28		0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-179	0.65	B	0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-180	2.5	C	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-181	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-182	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-183	0.94	C	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-184	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-185	0.94	C183	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-186	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-187	1.8		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-188	ND		0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-189	0.024		0.0099	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-190	0.15		0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-191	0.035		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-192	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-193	2.5	C180	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-194	0.86		0.0099	0.0052	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-195	0.28		0.0099	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-196	0.44		0.0099	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B439

Lab Sample ID: 580-78527-5

Date Collected: 06/29/18 11:51

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 55.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.032		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-198	1.0	C	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-199	1.0	C198	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-200	0.11		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-201	0.12		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-202	0.24		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-203	0.62		0.0099	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-204	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-205	0.038		0.0099	0.0044	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-206	0.63		0.0099	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-207	0.073		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-208	0.20		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
PCB-209	0.62		0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 18:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	69		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-3L	73		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-4L	81		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-15L	80		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-19L	92		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-37L	86		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-54L	65		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-77L	82		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-81L	82		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-104L	81		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-105L	91		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-114L	92		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-118L	89		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-123L	90		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-126L	85		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-155L	86		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-156L	82	C	30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-157L	82	C156	30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-167L	88		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-169L	88		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-170L	84		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-188L	93		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-189L	81		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-202L	104		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-205L	73		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-206L	84		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-208L	79		30 - 140				08/24/18 11:00	09/06/18 18:36	1
PCB-209L	80		30 - 140				08/24/18 11:00	09/06/18 18:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				08/24/18 11:00	09/06/18 18:36	1
PCB-111L	91		40 - 125				08/24/18 11:00	09/06/18 18:36	1
PCB-178L	96		40 - 125				08/24/18 11:00	09/06/18 18:36	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Date Collected: 06/29/18 14:12

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-6

Matrix: Solid

Percent Solids: 41.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.012	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-2	ND		0.012	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-3	ND		0.012	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-4	0.0099	J q	0.023	0.0078	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-5	ND		0.012	0.0058	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-6	ND		0.012	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-7	ND		0.012	0.0052	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-8	0.016	J	0.023	0.0047	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-9	ND		0.012	0.0054	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-10	ND		0.012	0.0057	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-11	0.052	B	0.023	0.0050	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-12	ND	C	0.023	0.0052	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-13	ND	C12	0.023	0.0052	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-14	ND		0.012	0.0044	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-15	0.014	q	0.012	0.0051	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-16	0.016		0.012	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-17	0.014	q	0.012	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-18	0.042	C	0.023	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-19	0.0039	J q	0.012	0.00052	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-20	0.078	C B	0.023	0.00098	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-21	0.037	C	0.023	0.00096	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-22	0.026		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-23	ND		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-24	ND		0.012	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-25	0.0075	J	0.012	0.00091	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-26	0.013	J C	0.023	0.00097	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-27	0.0026	J q	0.012	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-28	0.078	C20 B	0.023	0.00098	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-29	0.013	J C26	0.023	0.00097	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-30	0.042	C18	0.023	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-31	0.059	q	0.023	0.00096	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-32	0.015		0.012	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-33	0.037	C21	0.023	0.00096	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-34	ND		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-35	ND		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-36	ND		0.012	0.00097	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-37	0.024		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-38	ND		0.012	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-39	ND		0.012	0.00094	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-40	0.041	C	0.035	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-41	0.041	C40	0.035	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-42	0.020		0.012	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-43	0.0029	J C	0.023	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-44	0.079	C B	0.035	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-45	0.016	J C	0.023	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-46	0.0042	J q	0.012	0.00053	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-47	0.079	C44 B	0.035	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-48	0.016		0.012	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-49	0.058	C	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Lab Sample ID: 580-78527-6

Date Collected: 06/29/18 14:12

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 41.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0086	J q C	0.023	0.00040	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-51	0.016	J C45	0.023	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-52	0.13	B	0.012	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-53	0.0086	J q C50	0.023	0.00040	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-54	ND		0.012	0.000041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-55	0.0021	J q	0.012	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-56	0.031		0.012	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-57	ND		0.012	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-58	ND		0.012	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-59	0.0074	J C	0.035	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-60	0.015		0.012	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-61	0.14	C B	0.047	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-62	0.0074	J C59	0.035	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-63	0.0024	J q	0.012	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-64	0.038		0.012	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-65	0.079	C44 B	0.035	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-66	0.074	B	0.012	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-67	ND		0.012	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-68	ND		0.012	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-69	0.058	C49	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-70	0.14	C61 B	0.047	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-71	0.041	C40	0.035	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-72	ND		0.012	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-73	0.0029	J C43	0.023	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-74	0.14	C61 B	0.047	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-75	0.0074	J C59	0.035	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-76	0.14	C61 B	0.047	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-77	0.0086	J q	0.012	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-78	ND		0.012	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-79	0.0013	J q	0.012	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-80	ND		0.012	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-81	ND		0.012	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-82	0.015	q	0.012	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-83	0.11	C	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-84	0.043		0.012	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-85	0.038	C	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-86	0.12	C	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-87	0.12	C86	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-88	0.019	J q C	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-89	ND		0.012	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-90	0.19	C B	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-91	0.019	J q C88	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-92	0.034		0.012	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-93	0.0021	J C	0.023	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-94	ND		0.012	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-95	0.13	B	0.012	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-96	ND		0.012	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-97	0.12	C86	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-98	0.0029	J q C	0.023	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Lab Sample ID: 580-78527-6

Date Collected: 06/29/18 14:12

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 41.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.11	C83	0.023	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-100	0.0021	J C93	0.023	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-101	0.19	C90 B	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-102	0.0029	J q C98	0.023	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-103	0.0019	J q	0.012	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-104	ND		0.012	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-105	0.068	B	0.012	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-106	ND		0.012	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-107	0.012	q	0.012	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-108	0.0077	J C	0.023	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-109	0.12	C86	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-110	0.21	C B	0.023	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-111	ND		0.012	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-112	0.0017	J q	0.012	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-113	0.19	C90 B	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-114	ND		0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-115	0.21	C110 B	0.023	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-116	0.038	C85	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-117	0.038	C85	0.035	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-118	0.17	B	0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-119	0.12	C86	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-120	ND		0.012	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-121	ND		0.012	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-122	ND		0.012	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-123	0.0040	J q	0.012	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-124	0.0077	J C108	0.023	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-125	0.12	C86	0.070	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-126	ND		0.012	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-127	ND		0.012	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-128	0.047	C	0.023	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-129	0.34	C B	0.047	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-130	0.018		0.012	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-131	ND		0.012	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-132	0.082		0.012	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-133	ND		0.012	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-134	0.012	J q C	0.023	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-135	0.070	C	0.023	0.000039	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-136	0.025		0.012	0.000028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-137	0.013		0.012	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-138	0.34	C129 B	0.047	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-139	0.0053	J C	0.023	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-140	0.0053	J C139	0.023	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-141	0.056		0.012	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-142	ND		0.012	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-143	0.012	J q C134	0.023	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-144	0.0076	J q	0.012	0.000035	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-145	ND		0.012	0.000027	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-146	0.048		0.012	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-147	0.24	C B	0.023	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Lab Sample ID: 580-78527-6

Date Collected: 06/29/18 14:12

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 41.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.012	0.000038	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-149	0.24	C147 B	0.023	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-150	ND		0.012	0.000026	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-151	0.070	C135	0.023	0.000039	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-152	ND		0.012	0.000028	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-153	0.27	C B	0.023	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-154	0.0041	J q	0.012	0.000030	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-155	ND		0.012	0.000026	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-156	0.030	C	0.023	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-157	0.030	C156	0.023	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-158	0.031		0.012	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-159	ND		0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-160	0.34	C129 B	0.047	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-161	ND		0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-162	ND		0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-163	0.34	C129 B	0.047	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-164	0.022		0.012	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-165	ND		0.012	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-166	0.047	C128	0.023	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-167	0.010	J	0.012	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-168	0.27	C153 B	0.023	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-169	ND		0.012	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-170	0.070		0.012	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-171	0.017	J q C	0.023	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-172	0.010	J q	0.012	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-173	0.017	J q C171	0.023	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-174	0.075		0.012	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-175	0.0027	J q	0.012	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-176	0.0078	J q	0.012	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-177	0.053		0.012	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-178	0.018	q	0.012	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-179	0.035	B	0.012	0.000095	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-180	0.14	q C	0.023	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-181	ND		0.012	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-182	ND		0.012	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-183	0.052	C	0.023	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-184	ND		0.012	0.000097	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-185	0.052	C183	0.023	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-186	ND		0.012	0.000094	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-187	0.11		0.012	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-188	ND		0.012	0.000081	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-189	ND		0.012	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-190	0.012	q	0.012	0.000086	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-191	0.0033	J	0.012	0.000089	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-192	ND		0.012	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-193	0.14	q C180	0.023	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-194	0.041	q	0.012	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-195	0.020		0.012	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-196	0.018		0.012	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Lab Sample ID: 580-78527-6

Date Collected: 06/29/18 14:12

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 41.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.012	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-198	0.041	q C	0.023	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-199	0.041	q C198	0.023	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-200	0.0053	J	0.012	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-201	0.0038	J q	0.012	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-202	0.0095	J q	0.012	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-203	0.024	q	0.012	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-204	ND		0.012	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-205	ND		0.012	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-206	0.031		0.012	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-207	0.0031	J	0.012	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-208	0.0068	J q	0.012	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
PCB-209	0.050		0.012	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 03:21	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	67		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-3L	67		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-4L	72		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-15L	76		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-19L	79		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-37L	81		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-54L	73		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-77L	78		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-81L	78		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-104L	76		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-105L	82		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-114L	86		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-118L	82		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-123L	82		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-126L	73		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-155L	78		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-156L	68	C	30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-157L	68	C156	30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-167L	78		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-169L	72		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-170L	76		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-188L	86		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-189L	81		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-202L	98		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-205L	68		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-206L	72		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-208L	89		30 - 140				08/24/18 11:00	09/06/18 03:21	1
PCB-209L	71		30 - 140				08/24/18 11:00	09/06/18 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				08/24/18 11:00	09/06/18 03:21	1
PCB-111L	90		40 - 125				08/24/18 11:00	09/06/18 03:21	1
PCB-178L	106		40 - 125				08/24/18 11:00	09/06/18 03:21	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B445

Date Collected: 06/29/18 16:35

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-7

Matrix: Solid

Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0097	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-2	ND		0.0097	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-3	ND		0.0097	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-4	ND		0.019	0.0043	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-5	ND		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-6	ND		0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-7	ND		0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-8	ND		0.019	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-9	ND		0.0097	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-10	ND		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-11	0.013	J B	0.019	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-12	ND	C	0.019	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-13	ND	C12	0.019	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-14	ND		0.0097	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-15	ND		0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-16	ND		0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-17	0.0017	J	0.0097	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-18	0.0014	J C q	0.019	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-19	ND		0.0097	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-20	0.0047	J C B q	0.019	0.00080	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-21	0.0028	J C q	0.019	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-22	ND		0.0097	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-23	ND		0.0097	0.00081	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-24	ND		0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-25	ND		0.0097	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-26	ND	C	0.019	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-27	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-28	0.0047	J B C20 q	0.019	0.00080	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-29	ND	C26	0.019	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-30	0.0014	J C18 q	0.019	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-31	0.0042	J	0.019	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-32	0.0013	J q	0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-33	0.0028	J C21 q	0.019	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-34	ND		0.0097	0.00084	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-35	ND		0.0097	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-36	ND		0.0097	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-37	0.0023	J	0.0097	0.00081	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-38	ND		0.0097	0.00085	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-39	ND		0.0097	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-40	0.0031	J C	0.029	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-41	0.0031	J C40	0.029	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-42	0.0019	J q	0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-43	ND	C	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-44	0.010	J C B	0.029	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-45	0.0017	J C	0.019	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-46	ND		0.0097	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-47	0.010	J B C44	0.029	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-48	0.0010	J q	0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-49	0.0070	J C	0.019	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B445

Lab Sample ID: 580-78527-7

Date Collected: 06/29/18 16:35

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0013	J C q	0.019	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-51	0.0017	J C45	0.019	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-52	0.010	B q	0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-53	0.0013	J C50 q	0.019	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-54	ND		0.0097	0.000015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-55	ND		0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-56	0.0031	J q	0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-57	ND		0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-58	ND		0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-59	0.00060	J C q	0.029	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-60	0.0014	J q	0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-61	0.015	J C B	0.039	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-62	0.00060	J C59 q	0.029	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-63	ND		0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-64	0.0028	J q	0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-65	0.010	J B C44	0.029	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-66	0.0095	J B	0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-67	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-68	0.00075	J q	0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-69	0.0070	J C49	0.019	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-70	0.015	J C61 B	0.039	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-71	0.0031	J C40	0.029	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-72	ND		0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-73	ND	C43	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-74	0.015	J C61 B	0.039	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-75	0.00060	J C59 q	0.029	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-76	0.015	J C61 B	0.039	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-77	0.0014	J q	0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-78	0.00059	J q	0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-79	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-80	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-81	ND		0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-82	0.0021	J q	0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-83	0.015	J C	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-84	0.0040	J	0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-85	0.0060	J C	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-86	0.012	J C q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-87	0.012	J C86 q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-88	0.0032	J C	0.019	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-89	ND		0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-90	0.021	J C B q	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-91	0.0032	J C88	0.019	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-92	0.0035	J q	0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-93	ND	C	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-94	ND		0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-95	0.017	B	0.0097	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-96	ND		0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-97	0.012	J C86 q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-98	ND	C	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B445

Lab Sample ID: 580-78527-7

Date Collected: 06/29/18 16:35

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.015	J C83	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-100	ND	C93	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-101	0.021	J B C90 q	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-102	ND	C98	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-103	ND		0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-104	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-105	0.0079	J B	0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-106	ND		0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-107	ND		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-108	ND	C	0.019	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-109	0.012	J C86 q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-110	0.027	C B	0.019	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-111	ND		0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-112	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-113	0.021	J B C90 q	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-114	ND		0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-115	0.027	B C110	0.019	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-116	0.0060	J C85	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-117	0.0060	J C85	0.029	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-118	0.022	B	0.0097	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-119	0.012	J C86 q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-120	0.00073	J q	0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-121	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-122	ND		0.0097	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-123	ND		0.0097	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-124	ND	C108	0.019	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-125	0.012	J C86 q	0.058	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-126	ND		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-127	ND		0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-128	0.0082	J C q	0.019	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-129	0.061	C B	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-130	ND		0.0097	0.0041	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-131	ND		0.0097	0.0042	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-132	0.015		0.0097	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-133	ND		0.0097	0.0038	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-134	ND	C	0.019	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-135	0.012	J C q	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-136	0.0060	J	0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-137	ND		0.0097	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-138	0.061	B C129	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-139	ND	C	0.019	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-140	ND	C139	0.019	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-141	ND		0.0097	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-142	ND		0.0097	0.0038	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-143	ND	C134	0.019	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-144	0.0017	J q	0.0097	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-145	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-146	0.012	q	0.0097	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-147	0.040	C B	0.019	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B445

Lab Sample ID: 580-78527-7

Date Collected: 06/29/18 16:35

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0097	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-149	0.040	B C147	0.019	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-150	ND		0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-151	0.012	J C135 q	0.019	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-152	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-153	0.054	C B	0.019	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-154	0.0014	J q	0.0097	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-155	ND		0.0097	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-156	0.0059	J C	0.019	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-157	0.0059	J C156	0.019	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-158	0.0036	J q	0.0097	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-159	ND		0.0097	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-160	0.061	B C129	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-161	ND		0.0097	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-162	ND		0.0097	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-163	0.061	B C129	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-164	ND		0.0097	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-165	ND		0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-166	0.0082	J C128 q	0.019	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-167	ND		0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-168	0.054	B C153	0.019	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-169	ND		0.0097	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-170	0.023		0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-171	0.0090	J C	0.019	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-172	0.0062	J q	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-173	0.0090	J C171	0.019	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-174	0.028		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-175	ND		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-176	0.0027	J	0.0097	0.00091	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-177	0.014	q	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-178	0.011		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-179	0.012	B q	0.0097	0.00096	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-180	0.059	C	0.019	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-181	ND		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-182	ND		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-183	0.018	J C q	0.019	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-184	ND		0.0097	0.00098	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-185	0.018	J C183 q	0.019	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-186	ND		0.0097	0.00095	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-187	0.050		0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-188	ND		0.0097	0.00084	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-189	ND		0.0097	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-190	0.0061	J	0.0097	0.00087	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-191	ND		0.0097	0.00090	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-192	ND		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-193	0.059	C180	0.019	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-194	0.018	q	0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-195	ND		0.0097	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-196	0.010	q	0.0097	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B445

Lab Sample ID: 580-78527-7

Date Collected: 06/29/18 16:35

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-198	0.054	C	0.019	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-199	0.054	C198	0.019	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-200	0.0015	J q	0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-201	0.0043	J	0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-202	0.016		0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-203	0.021	q	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-204	ND		0.0097	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-205	ND		0.0097	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-206	0.17		0.0097	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-207	0.0076	J q	0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-208	0.064		0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
PCB-209	0.19		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 19:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	74		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-3L	78		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-4L	84		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-15L	84		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-19L	101		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-37L	91		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-54L	88		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-77L	85		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-81L	84		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-104L	88		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-105L	94		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-114L	97		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-118L	93		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-123L	97		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-126L	89		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-155L	90		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-156L	86	C	30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-157L	86	C156	30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-167L	90		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-169L	93		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-170L	86		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-188L	94		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-189L	85		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-202L	105		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-205L	78		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-206L	89		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-208L	89		30 - 140				08/24/18 11:00	09/06/18 19:38	1
PCB-209L	89		30 - 140				08/24/18 11:00	09/06/18 19:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				08/24/18 11:00	09/06/18 19:38	1
PCB-111L	93		40 - 125				08/24/18 11:00	09/06/18 19:38	1
PCB-178L	103		40 - 125				08/24/18 11:00	09/06/18 19:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B446

Date Collected: 06/30/18 11:36

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-8

Matrix: Solid

Percent Solids: 58.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00076	J q	0.0099	0.00010	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-2	ND		0.0099	0.00012	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-3	ND		0.0099	0.00013	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-4	ND		0.020	0.0050	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-5	ND		0.0099	0.0038	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-6	ND		0.0099	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-7	ND		0.0099	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-8	ND		0.020	0.0031	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-9	ND		0.0099	0.0035	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-10	ND		0.0099	0.0038	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-11	0.015	J B q	0.020	0.0033	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-12	ND	C	0.020	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-13	ND	C12	0.020	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-14	ND		0.0099	0.0029	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-15	ND		0.0099	0.0034	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-16	ND		0.0099	0.00021	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-17	0.0012	J	0.0099	0.00019	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-18	0.0025	J C	0.020	0.00017	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-19	ND		0.0099	0.00024	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-20	0.0029	J C B q	0.020	0.00038	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-21	0.0018	J C	0.020	0.00037	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-22	0.00092	J q	0.0099	0.00039	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-23	ND		0.0099	0.00039	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-24	ND		0.0099	0.00016	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-25	ND		0.0099	0.00035	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-26	ND	C	0.020	0.00037	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-27	ND		0.0099	0.00014	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-28	0.0029	J B C20 q	0.020	0.00038	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-29	ND	C26	0.020	0.00037	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-30	0.0025	J C18	0.020	0.00017	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-31	0.0039	J	0.020	0.00037	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-32	0.0014	J q	0.0099	0.00013	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-33	0.0018	J C21	0.020	0.00037	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-34	ND		0.0099	0.00040	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-35	0.00075	J	0.0099	0.00039	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-36	ND		0.0099	0.00038	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-37	0.0017	J q	0.0099	0.00039	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-38	ND		0.0099	0.00040	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-39	ND		0.0099	0.00036	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-40	0.0029	J C	0.030	0.00022	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-41	0.0029	J C40	0.030	0.00022	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-42	0.0011	J q	0.0099	0.00022	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-43	ND	C	0.020	0.00021	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-44	0.018	J C B	0.030	0.00020	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-45	0.0022	J C	0.020	0.00023	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-46	ND		0.0099	0.00028	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-47	0.018	J B C44	0.030	0.00020	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-48	0.00080	J	0.0099	0.00022	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1
PCB-49	0.0047	J C	0.020	0.00018	ng/g	✱	08/24/18 11:00	09/06/18 05:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B446

Lab Sample ID: 580-78527-8

Date Collected: 06/30/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0011	J C q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-51	0.0022	J C45	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-52	0.013	B	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-53	0.0011	J C50 q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-54	ND		0.0099	0.000023	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-55	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-56	0.0032	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-57	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-58	ND		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-59	ND C		0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-60	0.0020	J	0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-61	0.013	J C B q	0.040	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-62	ND C59		0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-63	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-64	0.0027	J	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-65	0.018	J B C44	0.030	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-66	0.0073	J B	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-67	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-68	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-69	0.0047	J C49	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-70	0.013	J C61 B q	0.040	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-71	0.0029	J C40	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-72	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-73	ND C43		0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-74	0.013	J C61 B q	0.040	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-75	ND C59		0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-76	0.013	J C61 B q	0.040	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-77	0.00060	J q	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-78	ND		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-79	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-80	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-81	0.00046	J	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-82	0.0024	J q	0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-83	0.020	C	0.020	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-84	0.0061	J	0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-85	0.0088	J C	0.030	0.000089	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-86	0.016	J C q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-87	0.016	J C86 q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-88	0.0027	J C q	0.020	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-89	ND		0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-90	0.027	J C B	0.030	0.000091	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-91	0.0027	J C88 q	0.020	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-92	0.0031	J q	0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-93	ND C		0.020	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-94	ND		0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-95	0.019	B q	0.0099	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-96	ND		0.0099	0.000089	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-97	0.016	J C86 q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-98	ND C		0.020	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B446

Lab Sample ID: 580-78527-8

Date Collected: 06/30/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.020	C83	0.020	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-100	ND	C93	0.020	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-101	0.027	J B C90	0.030	0.000091	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-102	ND	C98	0.020	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-103	ND		0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-104	ND		0.0099	0.000079	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-105	0.012	B	0.0099	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-106	ND		0.0099	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-107	0.0025	J q	0.0099	0.00063	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-108	0.0013	J C q	0.020	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-109	0.016	J C86 q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-110	0.036	C B	0.020	0.000076	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-111	ND		0.0099	0.000073	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-112	ND		0.0099	0.000077	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-113	0.027	J B C90	0.030	0.000091	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-114	ND		0.0099	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-115	0.036	B C110	0.020	0.000076	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-116	0.0088	J C85	0.030	0.000089	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-117	0.0088	J C85	0.030	0.000089	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-118	0.026	B	0.0099	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-119	0.016	J C86 q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-120	ND		0.0099	0.000074	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-121	ND		0.0099	0.000077	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-122	ND		0.0099	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-123	0.00090	J q	0.0099	0.00057	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-124	0.0013	J q C108	0.020	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-125	0.016	J C86 q	0.059	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-126	ND		0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-127	ND		0.0099	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-128	0.016	J C	0.020	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-129	0.11	C B	0.040	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-130	0.0042	J q	0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-131	ND		0.0099	0.0019	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-132	0.014		0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-133	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-134	ND	C	0.020	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-135	0.018	J C q	0.020	0.000046	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-136	0.0031	J q	0.0099	0.000033	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-137	0.0035	J	0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-138	0.11	B C129	0.040	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-139	ND	C	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-140	ND	C139	0.020	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-141	0.017		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-142	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-143	ND	C134	0.020	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-144	ND		0.0099	0.000042	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-145	ND		0.0099	0.000032	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-146	0.012	q	0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-147	0.054	C B	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B446

Lab Sample ID: 580-78527-8

Date Collected: 06/30/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.000045	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-149	0.054	B C147	0.020	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-150	ND		0.0099	0.000030	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-151	0.018	J C135 q	0.020	0.000046	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-152	ND		0.0099	0.000033	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-153	0.097	C B	0.020	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-154	ND		0.0099	0.000036	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-155	ND		0.0099	0.000031	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-156	0.0097	J C	0.020	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-157	0.0097	J C156	0.020	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-158	0.0067	J	0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-159	ND		0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-160	0.11	B C129	0.040	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-161	ND		0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-162	ND		0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-163	0.11	B C129	0.040	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-164	0.0064	J	0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-165	ND		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-166	0.016	J C128	0.020	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-167	0.0032	J q	0.0099	0.00084	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-168	0.097	B C153	0.020	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-169	ND		0.0099	0.00081	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-170	0.045		0.0099	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-171	0.0091	J C	0.020	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-172	0.0093	J	0.0099	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-173	0.0091	J C171	0.020	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-174	0.046		0.0099	0.00046	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-175	ND		0.0099	0.00045	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-176	0.0017	J q	0.0099	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-177	0.023	q	0.0099	0.00047	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-178	0.012		0.0099	0.00048	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-179	0.018	B	0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-180	0.10	C	0.020	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-181	ND		0.0099	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-182	ND		0.0099	0.00043	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-183	0.025	C	0.020	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-184	ND		0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-185	0.025	C183	0.020	0.00044	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-186	ND		0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-187	0.069		0.0099	0.00041	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-188	ND		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-189	0.0020	J q	0.0099	0.00067	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-190	0.011		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-191	ND		0.0099	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-192	ND		0.0099	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-193	0.10	C180	0.020	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-194	0.031		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-195	0.014		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-196	0.012	q	0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B446

Lab Sample ID: 580-78527-8

Date Collected: 06/30/18 11:36

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0014	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-198	0.044	C q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-199	0.044	C198 q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-200	0.0040	J	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-201	0.0032	J	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-202	0.0090	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-203	0.028		0.0099	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-204	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-205	ND		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-206	0.017		0.0099	0.00094	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-207	0.0017	J	0.0099	0.00063	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-208	0.0046	J q	0.0099	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
PCB-209	0.011		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 05:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	79		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-3L	77		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-4L	78		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-15L	84		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-19L	87		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-37L	87		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-54L	84		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-77L	86		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-81L	85		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-104L	81		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-105L	92		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-114L	91		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-118L	92		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-123L	90		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-126L	86		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-155L	93		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-156L	87	C	30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-157L	87	C156	30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-167L	91		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-169L	91		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-170L	88		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-188L	90		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-189L	84		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-202L	100		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-205L	75		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-206L	82		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-208L	90		30 - 140				08/24/18 11:00	09/06/18 05:24	1
PCB-209L	79		30 - 140				08/24/18 11:00	09/06/18 05:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125				08/24/18 11:00	09/06/18 05:24	1
PCB-111L	90		40 - 125				08/24/18 11:00	09/06/18 05:24	1
PCB-178L	98		40 - 125				08/24/18 11:00	09/06/18 05:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B447

Date Collected: 06/30/18 14:02

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-9

Matrix: Solid

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0099	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-2	0.014		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-3	0.0014	J B q	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-4	0.010	J	0.020	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-5	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-6	0.0051	J q	0.0099	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-7	ND		0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-8	0.017	J	0.020	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-9	ND		0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-10	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-11	0.056	B	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-12	ND	C	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-13	ND	C12	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-14	ND		0.0099	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-15	0.038		0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-16	0.014		0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-17	0.017		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-18	0.034	C	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-19	0.0078	J	0.0099	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-20	0.098	C B	0.020	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-21	0.030	C	0.020	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-22	0.030		0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-23	ND		0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-24	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-25	0.0077	J	0.0099	0.00056	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-26	0.014	J C	0.020	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-27	0.0049	J	0.0099	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-28	0.098	B C20	0.020	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-29	0.014	J C26	0.020	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-30	0.034	C18	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-31	0.070		0.020	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-32	0.017		0.0099	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-33	0.030	C21	0.020	0.00059	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-34	ND		0.0099	0.00064	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-35	0.0023	J q	0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-36	ND		0.0099	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-37	0.043		0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-38	ND		0.0099	0.00064	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-39	ND		0.0099	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-40	0.059	C	0.030	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-41	0.059	C40	0.030	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-42	0.035		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-43	0.0045	J C	0.020	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-44	0.15	C B	0.030	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-45	0.034	C	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-46	0.0080	J q	0.0099	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-47	0.15	B C44	0.030	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-48	0.015		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-49	0.10	C	0.020	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B447

Lab Sample ID: 580-78527-9

Date Collected: 06/30/18 14:02

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.029	C	0.020	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-51	0.034	C45	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-52	0.30	B	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-53	0.029	C50	0.020	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-54	ND		0.0099	0.000015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-55	ND		0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-56	0.054		0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-57	ND		0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-58	ND		0.0099	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-59	0.012	J C	0.030	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-60	0.026		0.0099	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-61	0.29	C B	0.039	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-62	0.012	J C59	0.030	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-63	0.0040	J	0.0099	0.000096	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-64	0.050		0.0099	0.000095	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-65	0.15	B C44	0.030	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-66	0.17	B	0.0099	0.000098	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-67	0.0031	J	0.0099	0.000091	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-68	0.0021	J	0.0099	0.000093	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-69	0.10	C49	0.020	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-70	0.29	C61 B	0.039	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-71	0.059	C40	0.030	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-72	0.0021	J	0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-73	0.0045	J C43	0.020	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-74	0.29	C61 B	0.039	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-75	0.012	J C59	0.030	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-76	0.29	C61 B	0.039	0.000099	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-77	0.015		0.0099	0.00010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-78	ND		0.0099	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-79	0.0048	J q	0.0099	0.000092	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-80	ND		0.0099	0.000090	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-81	ND		0.0099	0.000095	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-82	0.093		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-83	0.58	C	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-84	0.27		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-85	0.18	C	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-86	0.57	C	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-87	0.57	C86	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-88	0.16	C	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-89	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-90	0.90	C B	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-91	0.16	C88	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-92	0.17		0.0099	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-93	0.013	J C	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-94	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-95	1.0	B	0.0099	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-96	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-97	0.57	C86	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-98	0.028	C	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B447

Lab Sample ID: 580-78527-9

Date Collected: 06/30/18 14:02

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.58	C83	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-100	0.013	J C93	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-101	0.90	B C90	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-102	0.028	C98	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-103	ND		0.0099	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-104	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-105	0.25	B	0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-106	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-107	0.040	q	0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-108	0.028	C q	0.020	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-109	0.57	C86	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-110	1.2	C B	0.020	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-111	ND		0.0099	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-112	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-113	0.90	B C90	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-114	0.010		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-115	1.2	B C110	0.020	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-116	0.18	C85	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-117	0.18	C85	0.030	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-118	0.63	B	0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-119	0.57	C86	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-120	ND		0.0099	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-121	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-122	0.0086	J q	0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-123	0.014	q	0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-124	0.028	q C108	0.020	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-125	0.57	C86	0.059	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-126	0.0021	J q	0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-127	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-128	0.26	C	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-129	1.6	C B	0.039	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-130	0.11		0.0099	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-131	0.026		0.0099	0.0037	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-132	0.53		0.0099	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-133	0.020		0.0099	0.0033	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-134	0.088	C	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-135	0.43	C	0.020	0.000071	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-136	0.16		0.0099	0.000051	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-137	0.085		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-138	1.6	B C129	0.039	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-139	0.032	C	0.020	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-140	0.032	C139	0.020	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-141	0.27		0.0099	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-142	ND		0.0099	0.0033	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-143	0.088	C134	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-144	0.052		0.0099	0.000065	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-145	0.00082	J q	0.0099	0.000049	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-146	0.20		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-147	1.4	C B	0.020	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B447

Lab Sample ID: 580-78527-9

Date Collected: 06/30/18 14:02

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.000069	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-149	1.4	B C147	0.020	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-150	0.0015	J	0.0099	0.000047	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-151	0.43	C135	0.020	0.000071	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-152	ND		0.0099	0.000050	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-153	1.1	C B	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-154	0.012	q	0.0099	0.000056	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-155	ND		0.0099	0.000047	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-156	0.13	C	0.020	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-157	0.13	C156	0.020	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-158	0.15		0.0099	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-159	0.011		0.0099	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-160	1.6	B C129	0.039	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-161	ND		0.0099	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-162	0.0048	J q	0.0099	0.0022	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-163	1.6	B C129	0.039	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-164	0.11		0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-165	ND		0.0099	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-166	0.26	C128	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-167	0.047		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-168	1.1	B C153	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-169	0.0067	J q	0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-170	0.46		0.0099	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-171	0.12	C	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-172	0.078		0.0099	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-173	0.12	C171	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-174	0.43		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-175	0.016		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-176	0.044	q	0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-177	0.25		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-178	0.080		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-179	0.15	B	0.0099	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-180	0.97	C	0.020	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-181	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-182	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-183	0.30	C	0.020	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-184	ND		0.0099	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-185	0.30	C183	0.020	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-186	ND		0.0099	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-187	0.50		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-188	ND		0.0099	0.00011	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-189	0.012		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-190	0.074		0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-191	0.015		0.0099	0.00012	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-192	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-193	0.97	C180	0.020	0.00013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-194	0.25		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-195	0.10		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-196	0.11		0.0099	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B447

Lab Sample ID: 580-78527-9

Date Collected: 06/30/18 14:02

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0069	J	0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-198	0.23	C	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-199	0.23	C198	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-200	0.025		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-201	0.027		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-202	0.048		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-203	0.14		0.0099	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-204	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-205	0.013		0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-206	0.073		0.0099	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-207	0.0082	J	0.0099	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-208	0.021		0.0099	0.00048	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1
PCB-209	0.041		0.0099	0.00026	ng/g	☼	08/24/18 11:00	09/06/18 06:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	71		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-3L	73		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-4L	79		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-15L	80		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-19L	90		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-37L	87		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-54L	81		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-77L	85		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-81L	85		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-104L	82		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-105L	92		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-114L	91		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-118L	91		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-123L	90		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-126L	85		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-155L	86		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-156L	76	C	30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-157L	76	C156	30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-167L	86		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-169L	89		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-170L	86		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-188L	94		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-189L	82		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-202L	108		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-205L	73		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-206L	85		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-208L	79		30 - 140	08/24/18 11:00	09/06/18 06:26	1
PCB-209L	82		30 - 140	08/24/18 11:00	09/06/18 06:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125	08/24/18 11:00	09/06/18 06:26	1
PCB-111L	92		40 - 125	08/24/18 11:00	09/06/18 06:26	1
PCB-178L	105		40 - 125	08/24/18 11:00	09/06/18 06:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B449

Date Collected: 06/30/18 15:38

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-10

Matrix: Solid

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-2	0.011		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-3	ND		0.0099	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-4	0.014	J q	0.020	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-5	0.0083	J q	0.0099	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-6	ND		0.0099	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-7	ND		0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-8	ND		0.020	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-9	ND		0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-10	ND		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-11	0.048	B	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-12	ND	C	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-13	ND	C12	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-14	ND		0.0099	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-15	0.0091	J q	0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-16	0.0042	J	0.0099	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-17	0.011		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-18	0.012	J C	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-19	0.010		0.0099	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-20	0.034	C B	0.020	0.00069	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-21	0.014	J C	0.020	0.00067	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-22	0.010		0.0099	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-23	ND		0.0099	0.00070	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-24	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-25	0.0041	J	0.0099	0.00064	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-26	0.0056	J q C	0.020	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-27	0.0019	J q	0.0099	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-28	0.034	C20 B	0.020	0.00069	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-29	0.0056	J q C26	0.020	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-30	0.012	J C18	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-31	0.023	q	0.020	0.00067	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-32	0.0054	J q	0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-33	0.014	J C21	0.020	0.00067	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-34	ND		0.0099	0.00073	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-35	ND		0.0099	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-36	ND		0.0099	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-37	0.012		0.0099	0.00070	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-38	ND		0.0099	0.00073	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-39	ND		0.0099	0.00066	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-40	0.021	J C	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-41	0.021	J C40	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-42	0.0093	J q	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-43	0.0037	J C	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-44	0.067	C B	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-45	0.015	J C	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-46	0.0024	J q	0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-47	0.067	C44 B	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-48	0.0061	J q	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-49	0.051	C	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B449

Lab Sample ID: 580-78527-10

Date Collected: 06/30/18 15:38

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.017	J C	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-51	0.015	J C45	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-52	0.088	B	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-53	0.017	J C50	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-54	0.0013	J q	0.0099	0.000020	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-55	0.0015	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-56	0.021		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-57	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-58	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-59	0.0041	J C	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-60	0.0060	J q	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-61	0.087	C B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-62	0.0041	J C59	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-63	0.0017	J q	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-64	0.019		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-65	0.067	C44 B	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-66	0.053	B	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-67	0.0014	J q	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-68	0.0021	J	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-69	0.051	C49	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-70	0.087	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-71	0.021	J C40	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-72	0.0020	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-73	0.0037	J C43	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-74	0.087	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-75	0.0041	J C59	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-76	0.087	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-77	0.0072	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-78	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-79	0.0013	J	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-80	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-81	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-82	0.014		0.0099	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-83	0.12	C	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-84	0.025	q	0.0099	0.00038	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-85	0.025	J q C	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-86	0.098	C	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-87	0.098	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-88	0.032	C	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-89	ND		0.0099	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-90	0.25	C B	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-91	0.032	C88	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-92	0.049		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-93	0.0073	J C	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-94	ND		0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-95	0.20	B	0.0099	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-96	ND		0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-97	0.098	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-98	0.0043	J C	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B449

Lab Sample ID: 580-78527-10

Date Collected: 06/30/18 15:38

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.12	C83	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-100	0.0073	J C93	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-101	0.25	C90 B	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-102	0.0043	J C98	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-103	0.011		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-104	ND		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-105	0.053	B	0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-106	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-107	0.016		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-108	0.0061	J C	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-109	0.098	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-110	0.22	C B	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-111	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-112	ND		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-113	0.25	C90 B	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-114	ND		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-115	0.22	C110 B	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-116	0.025	J q C85	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-117	0.025	J q C85	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-118	0.14	B	0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-119	0.098	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-120	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-121	ND		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-122	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-123	0.0033	J q	0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-124	0.0061	J C108	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-125	0.098	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-126	ND		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-127	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-128	0.077	C	0.020	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-129	0.96	C B	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-130	0.047		0.0099	0.0042	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-131	ND		0.0099	0.0043	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-132	0.23		0.0099	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-133	0.015	q	0.0099	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-134	0.043	C	0.020	0.0041	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-135	0.41	C	0.020	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-136	0.099		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-137	0.011		0.0099	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-138	0.96	C129 B	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-139	ND	C	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-140	ND	C139	0.020	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-141	0.23		0.0099	0.0037	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-142	ND		0.0099	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-143	0.043	C134	0.020	0.0041	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-144	0.040		0.0099	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-145	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-146	0.18		0.0099	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-147	0.97	C B	0.020	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B449

Lab Sample ID: 580-78527-10

Date Collected: 06/30/18 15:38

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-149	0.97	C147 B	0.020	0.0040	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-150	0.0024	J q	0.0099	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-151	0.41	C135	0.020	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-152	ND		0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-153	0.99	C B	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-154	0.014		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-155	ND		0.0099	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-156	0.049	C	0.020	0.0037	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-157	0.049	C156	0.020	0.0037	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-158	0.071		0.0099	0.0025	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-159	0.012		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-160	0.96	C129 B	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-161	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-162	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-163	0.96	C129 B	0.039	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-164	0.076		0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-165	ND		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-166	0.077	C128	0.020	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-167	0.021		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-168	0.99	C153 B	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-169	ND		0.0099	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-170	0.45		0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-171	0.13	C	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-172	0.085		0.0099	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-173	0.13	C171	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-174	0.51		0.0099	0.00093	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-175	0.019		0.0099	0.00090	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-176	0.054		0.0099	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-177	0.28		0.0099	0.00096	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-178	0.11		0.0099	0.00098	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-179	0.22	B	0.0099	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-180	0.98	C	0.020	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-181	ND		0.0099	0.00090	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-182	0.0054	J q	0.0099	0.00087	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-183	0.32	C	0.020	0.00088	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-184	ND		0.0099	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-185	0.32	C183	0.020	0.00088	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-186	ND		0.0099	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-187	0.62		0.0099	0.00084	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-188	ND		0.0099	0.00060	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-189	0.016		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-190	0.087		0.0099	0.00065	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-191	0.016		0.0099	0.00068	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-192	ND		0.0099	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-193	0.98	C180	0.020	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-194	0.27		0.0099	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-195	0.13		0.0099	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-196	0.11		0.0099	0.00070	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B449

Lab Sample ID: 580-78527-10

Date Collected: 06/30/18 15:38

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 51.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0081	J	0.0099	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-198	0.25	C	0.020	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-199	0.25	C198	0.020	0.00071	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-200	0.031		0.0099	0.00048	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-201	0.020	q	0.0099	0.00049	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-202	0.047		0.0099	0.00055	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-203	0.14		0.0099	0.00064	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-204	ND		0.0099	0.00054	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-205	0.014	q	0.0099	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-206	0.074	q	0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-207	0.010		0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-208	0.019		0.0099	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1
PCB-209	0.040		0.0099	0.00039	ng/g	☼	08/24/18 11:00	09/06/18 07:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	68		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-3L	70		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-4L	82		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-15L	81		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-19L	93		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-37L	94		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-54L	90		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-77L	88		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-81L	89		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-104L	87		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-105L	94		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-114L	93		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-118L	96		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-123L	93		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-126L	87		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-155L	88		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-156L	79	C	30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-157L	79	C156	30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-167L	87		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-169L	79		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-170L	87		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-188L	105		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-189L	86		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-202L	115		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-205L	78		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-206L	82		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-208L	96		30 - 140	08/24/18 11:00	09/06/18 07:27	1
PCB-209L	77		30 - 140	08/24/18 11:00	09/06/18 07:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125	08/24/18 11:00	09/06/18 07:27	1
PCB-111L	96		40 - 125	08/24/18 11:00	09/06/18 07:27	1
PCB-178L	112		40 - 125	08/24/18 11:00	09/06/18 07:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Date Collected: 06/30/18 10:21

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-11

Matrix: Solid

Percent Solids: 59.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0099	0.00025	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-2	0.0032	J	0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-3	ND		0.0099	0.00030	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-4	ND		0.020	0.0043	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-5	ND		0.0099	0.0035	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-6	ND		0.0099	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-7	ND		0.0099	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-8	0.0059	J q	0.020	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-9	ND		0.0099	0.0032	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-10	ND		0.0099	0.0034	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-11	0.026	B q	0.020	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-12	ND	C	0.020	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-13	ND	C12	0.020	0.0031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-14	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-15	0.0063	J	0.0099	0.0033	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-16	0.0036	J q	0.0099	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-17	0.0068	J q	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-18	0.011	J C	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-19	0.0017	J q	0.0099	0.00029	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-20	0.034	C B	0.020	0.00080	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-21	0.014	J C	0.020	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-22	0.0073	J	0.0099	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-23	ND		0.0099	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-24	ND		0.0099	0.00020	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-25	0.0036	J	0.0099	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-26	0.0045	J C q	0.020	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-27	ND		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-28	0.034	B C20	0.020	0.00080	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-29	0.0045	J C26 q	0.020	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-30	0.011	J C18	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-31	0.022		0.020	0.00078	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-32	0.0064	J q	0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-33	0.014	J C21	0.020	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-34	ND		0.0099	0.00085	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-35	0.0019	J	0.0099	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-36	ND		0.0099	0.00079	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-37	0.010		0.0099	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-38	ND		0.0099	0.00085	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-39	ND		0.0099	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-40	0.022	J C q	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-41	0.022	J q C40	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-42	0.015		0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-43	0.0019	J C q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-44	0.076	C B	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-45	0.0072	J C	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-46	ND		0.0099	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-47	0.076	B C44	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-48	0.0041	J q	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-49	0.060	C	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Lab Sample ID: 580-78527-11

Date Collected: 06/30/18 10:21

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0056	J C q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-51	0.0072	J C45	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-52	0.097	B	0.0099	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-53	0.0056	J C50 q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-54	ND		0.0099	0.000014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-55	0.0014	J q	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-56	0.020		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-57	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-58	0.00054	J q	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-59	0.0046	J C	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-60	0.0041	J q	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-61	0.095	C B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-62	0.0046	J C59	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-63	0.0019	J q	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-64	0.021		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-65	0.076	B C44	0.030	0.00019	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-66	0.059	B	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-67	0.0012	J q	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-68	0.0034	J	0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-69	0.060	C49	0.020	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-70	0.095	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-71	0.022	J q C40	0.030	0.00022	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-72	0.0039	J	0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-73	0.0019	J C43 q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-74	0.095	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-75	0.0046	J C59	0.030	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-76	0.095	C61 B	0.039	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-77	0.0069	J q	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-78	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-79	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-80	ND		0.0099	0.00014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-81	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-82	0.011	q	0.0099	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-83	0.13	C	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-84	0.030		0.0099	0.00037	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-85	0.024	J C	0.030	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-86	0.087	C	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-87	0.087	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-88	0.036	C	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-89	ND		0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-90	0.16	C B	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-91	0.036	C88	0.020	0.00033	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-92	0.034		0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-93	0.0077	J C	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-94	ND		0.0099	0.00036	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-95	0.13	B	0.0099	0.00035	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-96	ND		0.0099	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-97	0.087	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-98	0.0049	J C q	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Lab Sample ID: 580-78527-11

Date Collected: 06/30/18 10:21

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.13	C83	0.020	0.00034	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-100	0.0077	J C93	0.020	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-101	0.16	B C90	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-102	0.0049	J C98 q	0.020	0.00031	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-103	0.0073	J	0.0099	0.00032	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-104	ND		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-105	0.038	B	0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-106	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-107	0.015		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-108	0.0044	J C q	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-109	0.087	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-110	0.16	C B	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-111	ND		0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-112	0.0012	J q	0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-113	0.16	B C90	0.030	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-114	ND		0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-115	0.16	B C110	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-116	0.024	J C85	0.030	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-117	0.024	J C85	0.030	0.00027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-118	0.12	B	0.0099	0.0013	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-119	0.087	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-120	0.0032	J	0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-121	ND		0.0099	0.00024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-122	ND		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-123	0.0024	J q	0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-124	0.0044	J q C108	0.020	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-125	0.087	C86	0.059	0.00028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-126	ND		0.0099	0.0015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-127	ND		0.0099	0.0014	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-128	0.031	C q	0.020	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-129	0.24	C B	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-130	0.012	q	0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-131	ND		0.0099	0.0029	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-132	0.056		0.0099	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-133	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-134	0.0074	J C q	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-135	0.046	C q	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-136	0.029		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-137	0.0069	J q	0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-138	0.24	B C129	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-139	ND	C	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-140	ND	C139	0.020	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-141	0.035		0.0099	0.0024	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-142	ND		0.0099	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-143	0.0074	J C134 q	0.020	0.0027	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-144	0.0045	J q	0.0099	0.00021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-145	ND		0.0099	0.00016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-146	0.049		0.0099	0.0023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-147	0.26	C B	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Lab Sample ID: 580-78527-11

Date Collected: 06/30/18 10:21

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0010	J q	0.0099	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-149	0.26	B C147	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-150	0.0018	J q	0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-151	0.046	C135 q	0.020	0.00023	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-152	ND		0.0099	0.00017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-153	0.23	C B	0.020	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-154	0.0075	J q	0.0099	0.00018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-155	ND		0.0099	0.00015	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-156	0.019	J C	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-157	0.019	J C156	0.020	0.0026	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-158	0.019		0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-159	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-160	0.24	B C129	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-161	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-162	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-163	0.24	B C129	0.039	0.0021	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-164	0.016		0.0099	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-165	ND		0.0099	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-166	0.031	C128 q	0.020	0.0020	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-167	0.0058	J	0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-168	0.23	B C153	0.020	0.0018	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-169	ND		0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-170	0.051	q	0.0099	0.0010	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-171	0.019	J C	0.020	0.00086	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-172	0.014		0.0099	0.00085	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-173	0.019	J C171	0.020	0.00086	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-174	0.062		0.0099	0.00080	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-175	0.0027	J	0.0099	0.00077	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-176	ND		0.0099	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-177	0.035	q	0.0099	0.00082	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-178	0.017		0.0099	0.00084	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-179	0.031	B	0.0099	0.00062	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-180	0.12	C	0.020	0.00065	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-181	ND		0.0099	0.00077	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-182	ND		0.0099	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-183	0.034	C q	0.020	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-184	ND		0.0099	0.00063	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-185	0.034	C183 q	0.020	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-186	ND		0.0099	0.00061	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-187	0.086		0.0099	0.00072	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-188	ND		0.0099	0.00051	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-189	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-190	0.0088	J q	0.0099	0.00056	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-191	ND		0.0099	0.00058	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-192	ND		0.0099	0.00065	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-193	0.12	C180	0.020	0.00065	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-194	0.028	q	0.0099	0.0036	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-195	ND		0.0099	0.0039	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-196	0.014	q	0.0099	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Lab Sample ID: 580-78527-11

Date Collected: 06/30/18 10:21

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0099	0.00083	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-198	0.037	C	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-199	0.037	C198	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-200	0.0043	J q	0.0099	0.00074	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-201	0.0037	J	0.0099	0.00076	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-202	0.0082	J	0.0099	0.00085	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-203	0.021		0.0099	0.00098	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-204	ND		0.0099	0.00083	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-205	ND		0.0099	0.0030	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-206	0.015	q	0.0099	0.0028	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-207	ND		0.0099	0.0017	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-208	0.0066	J q	0.0099	0.0016	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
PCB-209	0.027	q	0.0099	0.0012	ng/g	☼	08/24/18 11:00	09/06/18 20:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	73		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-3L	77		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-4L	85		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-15L	86		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-19L	95		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-37L	95		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-54L	88		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-77L	89		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-81L	88		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-104L	86		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-105L	97		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-114L	97		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-118L	93		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-123L	97		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-126L	90		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-155L	90		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-156L	82	C	30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-157L	82	C156	30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-167L	92		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-169L	84		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-170L	86		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-188L	108		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-189L	93		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-202L	116		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-205L	78		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-206L	84		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-208L	99		30 - 140				08/24/18 11:00	09/06/18 20:49	1
PCB-209L	74		30 - 140				08/24/18 11:00	09/06/18 20:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				08/24/18 11:00	09/06/18 20:49	1
PCB-111L	96		40 - 125				08/24/18 11:00	09/06/18 20:49	1
PCB-178L	112		40 - 125				08/24/18 11:00	09/06/18 20:49	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B444

Date Collected: 06/30/18 11:10

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-12

Matrix: Solid

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.00023	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-2	0.0049	J q	0.0098	0.00027	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-3	ND		0.0098	0.00030	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-4	0.0053	J q	0.020	0.0042	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-5	ND		0.0098	0.0035	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-6	ND		0.0098	0.0031	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-7	ND		0.0098	0.0032	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-8	0.0047	J q	0.020	0.0028	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-9	ND		0.0098	0.0032	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-10	ND		0.0098	0.0034	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-11	0.045	B	0.020	0.0030	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-12	ND	C	0.020	0.0031	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-13	ND	C12	0.020	0.0031	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-14	ND		0.0098	0.0027	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-15	ND		0.0098	0.0034	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-16	0.0023	J q	0.0098	0.00022	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-17	0.0039	J q	0.0098	0.00020	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-18	0.011	J C	0.020	0.00017	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-19	ND		0.0098	0.00024	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-20	0.030	C B	0.020	0.00056	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-21	0.0090	J C	0.020	0.00055	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-22	0.0088	J	0.0098	0.00058	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-23	ND		0.0098	0.00057	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-24	ND		0.0098	0.00017	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-25	ND		0.0098	0.00052	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-26	0.0049	J C	0.020	0.00055	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-27	0.00071	J q	0.0098	0.00014	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-28	0.030	B C20	0.020	0.00056	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-29	0.0049	J C26	0.020	0.00055	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-30	0.011	J C18	0.020	0.00017	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-31	0.020		0.020	0.00055	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-32	0.0047	J q	0.0098	0.00014	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-33	0.0090	J C21	0.020	0.00055	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-34	ND		0.0098	0.00059	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-35	ND		0.0098	0.00058	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-36	ND		0.0098	0.00056	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-37	0.0084	J q	0.0098	0.00057	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-38	ND		0.0098	0.00060	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-39	ND		0.0098	0.00054	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-40	0.012	J C q	0.029	0.00023	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-41	0.012	J q C40	0.029	0.00023	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-42	0.0061	J q	0.0098	0.00023	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-43	ND	C	0.020	0.00021	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-44	0.037	C B	0.029	0.00020	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-45	0.0039	J C	0.020	0.00024	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-46	ND		0.0098	0.00029	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-47	0.037	B C44	0.029	0.00020	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-48	0.0039	J q	0.0098	0.00023	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1
PCB-49	0.026	C	0.020	0.00019	ng/g	✱	08/24/18 11:00	09/07/18 01:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B444

Lab Sample ID: 580-78527-12

Date Collected: 06/30/18 11:10

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0032	J C q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-51	0.0039	J C45	0.020	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-52	0.050	B	0.0098	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-53	0.0032	J C50 q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-54	ND		0.0098	0.000017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-55	0.00087	J q	0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-56	0.014		0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-57	ND		0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-58	ND		0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-59	0.0024	J C q	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-60	0.0043	J q	0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-61	0.067	C B	0.039	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-62	0.0024	J C59 q	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-63	0.0010	J q	0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-64	0.013		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-65	0.037	B C44	0.029	0.00020	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-66	0.038	B	0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-67	0.0010	J	0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-68	0.00083	J	0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-69	0.026	C49	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-70	0.067	C61 B	0.039	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-71	0.012	J q C40	0.029	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-72	0.00089	J q	0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-73	ND	C43	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-74	0.067	C61 B	0.039	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-75	0.0024	J C59 q	0.029	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-76	0.067	C61 B	0.039	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-77	0.0055	J q	0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-78	ND		0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-79	0.00081	J q	0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-80	ND		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-81	0.00060	J q	0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-82	0.011		0.0098	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-83	0.063	C	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-84	0.018		0.0098	0.00025	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-85	0.022	J C	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-86	0.063	C	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-87	0.063	C86	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-88	0.011	J C q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-89	ND		0.0098	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-90	0.099	C B	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-91	0.011	J C88 q	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-92	0.019		0.0098	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-93	0.0022	J C q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-94	ND		0.0098	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-95	0.058	B q	0.0098	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-96	ND		0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-97	0.063	C86	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-98	0.0019	J C q	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B444

Lab Sample ID: 580-78527-12

Date Collected: 06/30/18 11:10

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.063	C83	0.020	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-100	0.0022	J C93 q	0.020	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-101	0.099	B C90	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-102	0.0019	J C98 q	0.020	0.00020	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-103	ND		0.0098	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-104	ND		0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-105	0.037	B	0.0098	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-106	ND		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-107	0.0085	J q	0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-108	0.0044	J C q	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-109	0.063	C86	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-110	0.12	C B	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-111	ND		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-112	ND		0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-113	0.099	B C90	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-114	0.0021	J q	0.0098	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-115	0.12	B C110	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-116	0.022	J C85	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-117	0.022	J C85	0.029	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-118	0.086	B	0.0098	0.00099	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-119	0.063	C86	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-120	ND		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-121	ND		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-122	ND		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-123	ND		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-124	0.0044	J q C108	0.020	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-125	0.063	C86	0.059	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-126	ND		0.0098	0.0012	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-127	ND		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-128	0.027	C q	0.020	0.00077	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-129	0.23	C B	0.039	0.00080	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-130	0.012		0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-131	0.0022	J	0.0098	0.0011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-132	0.046	q	0.0098	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-133	0.0038	J	0.0098	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-134	0.0075	J C q	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-135	0.054	C	0.020	0.000042	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-136	0.013	q	0.0098	0.000030	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-137	0.0076	J q	0.0098	0.00090	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-138	0.23	B C129	0.039	0.00080	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-139	ND	C	0.020	0.00089	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-140	ND	C139	0.020	0.00089	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-141	0.036		0.0098	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-142	ND		0.0098	0.00099	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-143	0.0075	J C134 q	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-144	0.0062	J	0.0098	0.000038	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-145	ND		0.0098	0.000029	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-146	0.033		0.0098	0.00088	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-147	0.15	C B	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B444

Lab Sample ID: 580-78527-12

Date Collected: 06/30/18 11:10

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000040	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-149	0.15	B C147	0.020	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-150	ND		0.0098	0.000027	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-151	0.054	C135	0.020	0.000042	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-152	ND		0.0098	0.000029	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-153	0.18	C B	0.020	0.00070	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-154	0.0023	J q	0.0098	0.000033	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-155	ND		0.0098	0.000027	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-156	0.019	J C	0.020	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-157	0.019	J C156	0.020	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-158	0.018		0.0098	0.00063	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-159	0.0017	J	0.0098	0.00067	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-160	0.23	B C129	0.039	0.00080	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-161	ND		0.0098	0.00066	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-162	ND		0.0098	0.00065	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-163	0.23	B C129	0.039	0.00080	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-164	0.015		0.0098	0.00070	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-165	ND		0.0098	0.00075	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-166	0.027	C128 q	0.020	0.00077	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-167	0.0071	J	0.0098	0.00045	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-168	0.18	B C153	0.020	0.00070	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-169	ND		0.0098	0.00052	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-170	0.059		0.0098	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-171	0.014	J C q	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-172	0.0097	J	0.0098	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-173	0.014	J C171 q	0.020	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-174	0.056		0.0098	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-175	0.0018	J q	0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-176	0.0045	J q	0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-177	0.033		0.0098	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-178	0.016		0.0098	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-179	0.024	B	0.0098	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-180	0.13	C	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-181	ND		0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-182	0.0016	J q	0.0098	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-183	0.039	C	0.020	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-184	ND		0.0098	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-185	0.039	C183	0.020	0.00017	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-186	ND		0.0098	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-187	0.083		0.0098	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-188	ND		0.0098	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-189	0.0033	J	0.0098	0.0014	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-190	0.011		0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-191	0.0021	J q	0.0098	0.00013	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-192	ND		0.0098	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-193	0.13	C180	0.020	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-194	0.028	q	0.0098	0.00052	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-195	0.016		0.0098	0.00057	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-196	0.014		0.0098	0.000077	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B444

Lab Sample ID: 580-78527-12

Date Collected: 06/30/18 11:10

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00055	J q	0.0098	0.000059	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-198	0.037	C q	0.020	0.000078	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-199	0.037	C198 q	0.020	0.000078	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-200	0.0031	J	0.0098	0.000053	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-201	0.0027	J q	0.0098	0.000054	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-202	0.0062	J q	0.0098	0.000060	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-203	0.023		0.0098	0.000070	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-204	ND		0.0098	0.000059	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-205	ND		0.0098	0.00044	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-206	0.025	q	0.0098	0.00072	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-207	0.0023	J q	0.0098	0.00034	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-208	0.0086	J	0.0098	0.00028	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
PCB-209	0.054		0.0098	0.00035	ng/g	☼	08/24/18 11:00	09/07/18 01:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	70		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-3L	70		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-4L	80		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-15L	76		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-19L	87		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-37L	84		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-54L	79		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-77L	86		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-81L	85		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-104L	78		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-105L	90		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-114L	92		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-118L	91		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-123L	89		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-126L	85		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-155L	85		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-156L	75	C	30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-157L	75	C156	30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-167L	84		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-169L	82		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-170L	84		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-188L	94		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-189L	85		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-202L	107		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-205L	73		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-206L	82		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-208L	82		30 - 140				08/24/18 11:00	09/07/18 01:24	1
PCB-209L	76		30 - 140				08/24/18 11:00	09/07/18 01:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	95		40 - 125				08/24/18 11:00	09/07/18 01:24	1
PCB-111L	97		40 - 125				08/24/18 11:00	09/07/18 01:24	1
PCB-178L	104		40 - 125				08/24/18 11:00	09/07/18 01:24	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B448

Lab Sample ID: 580-78527-13

Date Collected: 06/30/18 12:08

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.012		0.0097	0.00031	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-2	0.0050	J q	0.0097	0.00035	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-3	0.0085	J B q	0.0097	0.00038	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-4	0.019	q	0.019	0.0041	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-5	ND		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-6	0.019		0.0097	0.0028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-7	0.0057	J q	0.0097	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-8	0.060		0.019	0.0026	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-9	0.0054	J q	0.0097	0.0030	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-10	ND		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-11	0.032	B	0.019	0.0028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-12	0.0085	J C q	0.019	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-13	0.0085	J C12 q	0.019	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-14	ND		0.0097	0.0024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-15	0.032		0.0097	0.0030	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-16	0.039		0.0097	0.00038	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-17	0.059		0.0097	0.00034	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-18	0.094	C	0.019	0.00030	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-19	0.0090	J	0.0097	0.00042	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-20	0.20	C B	0.019	0.00094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-21	0.11	C	0.019	0.00092	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-22	0.054		0.0097	0.00097	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-23	ND		0.0097	0.00096	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-24	0.0014	J q	0.0097	0.00029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-25	0.024		0.0097	0.00087	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-26	0.030	C	0.019	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-27	0.0079	J	0.0097	0.00025	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-28	0.20	B C20	0.019	0.00094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-29	0.030	C26	0.019	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-30	0.094	C18	0.019	0.00030	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-31	0.14		0.019	0.00092	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-32	0.036		0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-33	0.11	C21	0.019	0.00092	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-34	0.0057	J	0.0097	0.00099	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-35	0.0029	J	0.0097	0.00097	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-36	ND		0.0097	0.00093	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-37	0.045		0.0097	0.00096	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-38	ND		0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-39	0.0020	J	0.0097	0.00090	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-40	0.14	C	0.029	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-41	0.14	C40	0.029	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-42	0.088		0.0097	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-43	0.011	J C	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-44	0.39	C B	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-45	0.038	C	0.019	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-46	0.014	q	0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-47	0.39	B C44	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-48	0.040	q	0.0097	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-49	0.34	C	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B448

Lab Sample ID: 580-78527-13

Date Collected: 06/30/18 12:08

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.034	C	0.019	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-51	0.038	C45	0.019	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-52	0.55	B	0.0097	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-53	0.034	C50	0.019	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-54	ND		0.0097	0.000021	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-55	0.0052	J q	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-56	0.13		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-57	ND		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-58	0.0065	J q	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-59	0.028	J C	0.029	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-60	0.021	q	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-61	0.56	C B	0.039	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-62	0.028	J C59	0.029	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-63	0.016		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-64	0.10		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-65	0.39	B C44	0.029	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-66	0.36	B	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-67	0.0058	J q	0.0097	0.000098	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-68	0.015		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-69	0.34	C49	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-70	0.56	C61 B	0.039	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-71	0.14	C40	0.029	0.00015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-72	0.022	q	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-73	0.011	J C43	0.019	0.00014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-74	0.56	C61 B	0.039	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-75	0.028	J C59	0.029	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-76	0.56	C61 B	0.039	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-77	0.021		0.0097	0.00010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-78	ND		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-79	0.0077	J q	0.0097	0.000099	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-80	0.00090	J q	0.0097	0.000097	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-81	ND		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-82	0.082		0.0097	0.00013	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-83	0.71	C	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-84	0.25		0.0097	0.00013	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-85	0.12	C	0.029	0.000094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-86	0.53	C	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-87	0.53	C86	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-88	0.15	C	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-89	ND		0.0097	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-90	1.0	C B	0.029	0.000096	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-91	0.15	C88	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-92	0.22		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-93	0.014	J C q	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-94	ND		0.0097	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-95	0.82	B	0.0097	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-96	ND		0.0097	0.000094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-97	0.53	C86	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-98	0.027	C	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B448

Lab Sample ID: 580-78527-13

Date Collected: 06/30/18 12:08

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.71	C83	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-100	0.014	J C93 q	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-101	1.0	B C90	0.029	0.000096	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-102	0.027	C98	0.019	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-103	ND		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-104	ND		0.0097	0.000084	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-105	0.16	B	0.0097	0.0015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-106	ND		0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-107	0.093		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-108	0.020	C	0.019	0.0016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-109	0.53	C86	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-110	1.1	C B	0.019	0.000080	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-111	ND		0.0097	0.000077	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-112	0.0053	J	0.0097	0.000082	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-113	1.0	B C90	0.029	0.000096	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-114	0.0079	J q	0.0097	0.0015	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-115	1.1	B C110	0.019	0.000080	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-116	0.12	C85	0.029	0.000094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-117	0.12	C85	0.029	0.000094	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-118	0.71	B	0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-119	0.53	C86	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-120	0.012		0.0097	0.000079	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-121	ND		0.0097	0.000081	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-122	0.0094	J q	0.0097	0.0018	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-123	0.0096	J	0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-124	0.020	C108	0.019	0.0016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-125	0.53	C86	0.058	0.000095	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-126	ND		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-127	ND		0.0097	0.0016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-128	0.16	C	0.019	0.0028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-129	1.1	C B	0.039	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-130	0.085		0.0097	0.0038	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-131	0.012		0.0097	0.0039	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-132	0.42		0.0097	0.0037	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-133	0.033		0.0097	0.0036	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-134	0.062	C q	0.019	0.0037	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-135	0.24	C q	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-136	0.14		0.0097	0.000084	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-137	0.040		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-138	1.1	B C129	0.039	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-139	0.027	C	0.019	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-140	0.027	C139	0.019	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-141	0.17		0.0097	0.0033	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-142	ND		0.0097	0.0036	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-143	0.062	C134 q	0.019	0.0037	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-144	0.033		0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-145	ND		0.0097	0.000080	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-146	0.28		0.0097	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-147	1.1	C B	0.019	0.0036	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B448

Lab Sample ID: 580-78527-13

Date Collected: 06/30/18 12:08

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0047	J q	0.0097	0.00011	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-149	1.1	B C147	0.019	0.0036	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-150	0.0023	J q	0.0097	0.000077	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-151	0.24	C135 q	0.019	0.00012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-152	0.0010	J q	0.0097	0.000083	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-153	0.95	C B	0.019	0.0025	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-154	0.037		0.0097	0.000091	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-155	ND		0.0097	0.000077	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-156	0.078	C	0.019	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-157	0.078	C156	0.019	0.0032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-158	0.070		0.0097	0.0023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-159	0.0079	J q	0.0097	0.0024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-160	1.1	B C129	0.039	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-161	ND		0.0097	0.0024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-162	ND		0.0097	0.0023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-163	1.1	B C129	0.039	0.0029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-164	0.080		0.0097	0.0025	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-165	ND		0.0097	0.0027	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-166	0.16	C128	0.019	0.0028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-167	0.031		0.0097	0.0017	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-168	0.95	B C153	0.019	0.0025	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-169	0.0044	J q	0.0097	0.0019	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-170	0.26		0.0097	0.00037	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-171	0.079	C	0.019	0.00032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-172	0.052		0.0097	0.00032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-173	0.079	C171	0.019	0.00032	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-174	0.28		0.0097	0.00030	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-175	0.012		0.0097	0.00029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-176	0.041		0.0097	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-177	0.20		0.0097	0.00031	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-178	0.080		0.0097	0.00031	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-179	0.14	B	0.0097	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-180	0.56	C	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-181	ND		0.0097	0.00029	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-182	0.0099		0.0097	0.00028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-183	0.18	C	0.019	0.00028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-184	ND		0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-185	0.18	C183	0.019	0.00028	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-186	ND		0.0097	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-187	0.44		0.0097	0.00027	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-188	ND		0.0097	0.00019	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-189	0.0084	J	0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-190	0.042		0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-191	0.0091	J q	0.0097	0.00022	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-192	ND		0.0097	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-193	0.56	C180	0.019	0.00024	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-194	0.24		0.0097	0.0012	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-195	0.098		0.0097	0.0014	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-196	0.097		0.0097	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B448

Lab Sample ID: 580-78527-13

Date Collected: 06/30/18 12:08

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.012		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-198	0.22	C	0.019	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-199	0.22	C198	0.019	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-200	0.022		0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-201	0.029		0.0097	0.00016	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-202	0.045		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-203	0.13		0.0097	0.00021	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-204	ND		0.0097	0.00018	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-205	0.012	q	0.0097	0.0010	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-206	0.10		0.0097	0.0013	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-207	0.0098		0.0097	0.00083	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-208	0.025		0.0097	0.00080	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1
PCB-209	0.060		0.0097	0.00023	ng/g	☼	08/24/18 11:00	09/07/18 02:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	76		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-3L	77		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-4L	84		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-15L	80		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-19L	95		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-37L	90		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-54L	87		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-77L	86		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-81L	87		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-104L	87		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-105L	95		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-114L	95		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-118L	94		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-123L	93		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-126L	86		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-155L	90		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-156L	83	C	30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-157L	83	C156	30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-167L	89		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-169L	85		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-170L	87		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-188L	103		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-189L	86		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-202L	115		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-205L	75		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-206L	86		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-208L	92		30 - 140	08/24/18 11:00	09/07/18 02:26	1
PCB-209L	83		30 - 140	08/24/18 11:00	09/07/18 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	100		40 - 125	08/24/18 11:00	09/07/18 02:26	1
PCB-111L	93		40 - 125	08/24/18 11:00	09/07/18 02:26	1
PCB-178L	109		40 - 125	08/24/18 11:00	09/07/18 02:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B451

Lab Sample ID: 580-78527-14

Date Collected: 06/30/18 14:45

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 66.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00086	J q	0.0098	0.000071	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-2	0.00096	J B q	0.0098	0.000084	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-3	0.0011	J	0.0098	0.000095	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-4	ND		0.020	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-5	ND		0.0098	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-6	ND		0.0098	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-7	ND		0.0098	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-8	0.0033	J q	0.020	0.0025	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-9	ND		0.0098	0.0028	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-10	ND		0.0098	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-11	0.020	B q	0.020	0.0026	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-12	ND	C	0.020	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-13	ND	C12	0.020	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-14	ND		0.0098	0.0023	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-15	0.0045	J q	0.0098	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-16	ND		0.0098	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-17	0.0024	J q	0.0098	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-18	0.0066	J C B	0.020	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-19	ND		0.0098	0.00021	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-20	0.016	J C	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-21	0.0051	J C B q	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-22	0.0031	J q	0.0098	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-23	ND		0.0098	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-24	ND		0.0098	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-25	0.0017	J	0.0098	0.00045	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-26	0.0030	J C q	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-27	ND		0.0098	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-28	0.016	J C20	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-29	0.0030	J C26 q	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-30	0.0066	J C18 B	0.020	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-31	0.013	J	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-32	0.0021	J B q	0.0098	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-33	0.0051	J B C21 q	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-34	ND		0.0098	0.00051	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-35	ND		0.0098	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-36	ND		0.0098	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-37	0.0041	J q	0.0098	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-38	ND		0.0098	0.00052	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-39	ND		0.0098	0.00046	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-40	0.0098	J C	0.029	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-41	0.0098	J C40	0.029	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-42	0.0052	J q	0.0098	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-43	ND	C	0.020	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-44	0.029	C B	0.029	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-45	0.0016	J C q	0.020	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-46	ND		0.0098	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-47	0.029	B C44	0.029	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-48	0.0023	J q	0.0098	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1
PCB-49	0.023	C	0.020	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 03:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B451

Lab Sample ID: 580-78527-14

Date Collected: 06/30/18 14:45

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 66.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0016	J C q	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-51	0.0016	J C45 q	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-52	0.047	B	0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-53	0.0016	J C50 q	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-54	ND		0.0098	0.000028	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-55	0.00085	J q	0.0098	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-56	0.0097	J	0.0098	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-57	ND		0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-58	ND		0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-59	0.0021	J C	0.029	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-60	0.0028	J q	0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-61	0.055	C B	0.039	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-62	0.0021	J C59	0.029	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-63	0.0016	J	0.0098	0.000092	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-64	0.0083	J	0.0098	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-65	0.029	B C44	0.029	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-66	0.031		0.0098	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-67	0.00093	J q	0.0098	0.000087	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-68	0.0013	J B q	0.0098	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-69	0.023	C49	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-70	0.055	C61 B	0.039	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-71	0.0098	J C40	0.029	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-72	0.0011	J	0.0098	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-73	ND	C43	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-74	0.055	C61 B	0.039	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-75	0.0021	J C59	0.029	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-76	0.055	C61 B	0.039	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-77	0.0026	J	0.0098	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-78	ND		0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-79	0.0010	J q	0.0098	0.000088	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-80	ND		0.0098	0.000087	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-81	ND		0.0098	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-82	0.0093	J q	0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-83	0.068	C	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-84	0.026		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-85	0.017	J C	0.029	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-86	0.063	C	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-87	0.063	C86	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-88	0.015	J C q	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-89	ND		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-90	0.11	C	0.029	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-91	0.015	J C88 q	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-92	0.021		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-93	0.0027	J C q	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-94	ND		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-95	0.083		0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-96	ND		0.0098	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-97	0.063	C86	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-98	0.0015	J C q	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B451

Lab Sample ID: 580-78527-14

Date Collected: 06/30/18 14:45

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 66.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.068	C83	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-100	0.0027	J C93 q	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-101	0.11	C90	0.029	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-102	0.0015	J C98 q	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-103	0.0023	J	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-104	ND		0.0098	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-105	0.025	q	0.0098	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-106	ND		0.0098	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-107	0.0097	J	0.0098	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-108	0.0020	J C B q	0.020	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-109	0.063	C86	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-110	0.12	C B	0.020	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-111	ND		0.0098	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-112	ND		0.0098	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-113	0.11	C90	0.029	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-114	ND		0.0098	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-115	0.12	B C110	0.020	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-116	0.017	J C85	0.029	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-117	0.017	J C85	0.029	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-118	0.081		0.0098	0.00063	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-119	0.063	C86	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-120	0.0011	J q	0.0098	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-121	ND		0.0098	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-122	ND		0.0098	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-123	ND		0.0098	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-124	0.0020	J B q C108	0.020	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-125	0.063	C86	0.059	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-126	ND		0.0098	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-127	ND		0.0098	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-128	0.019	J C	0.020	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-129	0.14	C B	0.039	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-130	0.010		0.0098	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-131	ND		0.0098	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-132	0.046		0.0098	0.00097	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-133	0.0033	J	0.0098	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-134	0.0083	J C	0.020	0.00098	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-135	0.033	C q	0.020	0.000086	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-136	0.016		0.0098	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-137	0.0050	J q	0.0098	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-138	0.14	B C129	0.039	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-139	0.0023	J C q	0.020	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-140	0.0023	J C139 q	0.020	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-141	0.020		0.0098	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-142	ND		0.0098	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-143	0.0083	J C134	0.020	0.00098	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-144	0.0039	J	0.0098	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-145	ND		0.0098	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-146	0.028		0.0098	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-147	0.12	C B	0.020	0.00095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B451

Lab Sample ID: 580-78527-14

Date Collected: 06/30/18 14:45

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 66.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-149	0.12	B C147	0.020	0.00095	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-150	0.00022	J q	0.0098	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-151	0.033	C135 q	0.020	0.000086	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-152	ND		0.0098	0.000061	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-153	0.11	C B	0.020	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-154	0.0049	J q	0.0098	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-155	ND		0.0098	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-156	0.015	J C B	0.020	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-157	0.015	J C156 B	0.020	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-158	0.013		0.0098	0.00059	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-159	ND		0.0098	0.00063	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-160	0.14	B C129	0.039	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-161	ND		0.0098	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-162	ND		0.0098	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-163	0.14	B C129	0.039	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-164	0.0090	J	0.0098	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-165	ND		0.0098	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-166	0.019	J C128	0.020	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-167	0.0053	J	0.0098	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-168	0.11	B C153	0.020	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-169	ND		0.0098	0.00046	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-170	0.030		0.0098	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-171	0.0082	J C q	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-172	0.0067	J	0.0098	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-173	0.0082	J C171 q	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-174	0.033		0.0098	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-175	0.0012	J q	0.0098	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-176	0.0029	J q	0.0098	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-177	0.020		0.0098	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-178	0.0085	J	0.0098	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-179	0.015		0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-180	0.064	C B	0.020	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-181	ND		0.0098	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-182	0.00082	J q	0.0098	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-183	0.022	C	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-184	ND		0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-185	0.022	C183	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-186	ND		0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-187	0.043		0.0098	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-188	ND		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-189	0.0015	J	0.0098	0.00057	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-190	0.0051	J q	0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-191	ND		0.0098	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-192	ND		0.0098	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-193	0.064	C180 B	0.020	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-194	0.018	B	0.0098	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-195	0.0087	J	0.0098	0.00086	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-196	0.0074	J q	0.0098	0.00034	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B451

Lab Sample ID: 580-78527-14

Date Collected: 06/30/18 14:45

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 66.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-198	0.016	J C q	0.020	0.00035	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-199	0.016	J C198 q	0.020	0.00035	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-200	0.0018	J q	0.0098	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-201	0.0021	J q	0.0098	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-202	0.0033	J	0.0098	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-203	0.012	B	0.0098	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-204	ND		0.0098	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-205	ND		0.0098	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-206	0.011		0.0098	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-207	ND		0.0098	0.00064	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-208	0.0041	J	0.0098	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1
PCB-209	0.014		0.0098	0.000032	ng/g	☼	08/28/18 06:14	09/07/18 03:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	72		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-3L	72		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-4L	79		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-15L	75		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-19L	88		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-37L	83		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-54L	81		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-77L	84		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-81L	85		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-104L	80		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-105L	93		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-114L	94		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-118L	93		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-123L	92		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-126L	88		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-155L	87		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-156L	88	C	30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-157L	88	C156	30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-167L	91		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-169L	91		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-170L	87		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-188L	90		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-189L	80		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-202L	101		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-205L	75		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-206L	86		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-208L	87		30 - 140	08/28/18 06:14	09/07/18 03:27	1
PCB-209L	85		30 - 140	08/28/18 06:14	09/07/18 03:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	95		40 - 125	08/28/18 06:14	09/07/18 03:27	1
PCB-111L	94		40 - 125	08/28/18 06:14	09/07/18 03:27	1
PCB-178L	97		40 - 125	08/28/18 06:14	09/07/18 03:27	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B455

Lab Sample ID: 580-78527-15

Date Collected: 06/30/18 15:55

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-2	0.0058	J B	0.0098	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-3	0.0016	J q	0.0098	0.00025	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-4	0.0040	J q	0.020	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-5	ND		0.0098	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-6	0.0047	J q	0.0098	0.0029	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-7	ND		0.0098	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-8	0.010	J q	0.020	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-9	ND		0.0098	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-10	ND		0.0098	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-11	0.053	B	0.020	0.0028	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-12	ND	C	0.020	0.0029	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-13	ND	C12	0.020	0.0029	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-14	ND		0.0098	0.0025	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-15	0.0097	J q	0.0098	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-16	0.0048	J	0.0098	0.00028	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-17	0.011	q	0.0098	0.00025	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-18	0.021	C B	0.020	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-19	0.0019	J q	0.0098	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-20	0.047	C	0.020	0.00080	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-21	0.023	C B	0.020	0.00078	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-22	0.010	q	0.0098	0.00082	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-23	ND		0.0098	0.00081	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-24	ND		0.0098	0.00021	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-25	0.0058	J	0.0098	0.00074	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-26	0.0075	J C q	0.020	0.00079	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-27	0.0022	J q	0.0098	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-28	0.047	C20	0.020	0.00080	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-29	0.0075	J C26 q	0.020	0.00079	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-30	0.021	C18 B	0.020	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-31	0.032		0.020	0.00078	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-32	0.0066	J B q	0.0098	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-33	0.023	B C21	0.020	0.00078	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-34	ND		0.0098	0.00084	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-35	ND		0.0098	0.00082	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-36	ND		0.0098	0.00079	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-37	0.013		0.0098	0.00082	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-38	ND		0.0098	0.00085	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-39	ND		0.0098	0.00076	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-40	0.029	C	0.029	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-41	0.029	C40	0.029	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-42	0.018		0.0098	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-43	0.0028	J C q	0.020	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-44	0.065	C B	0.029	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-45	0.0085	J C	0.020	0.00020	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-46	0.0025	J	0.0098	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-47	0.065	B C44	0.029	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-48	0.0066	J q	0.0098	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1
PCB-49	0.053	C	0.020	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 04:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B455

Lab Sample ID: 580-78527-15

Date Collected: 06/30/18 15:55

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0064	J C	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-51	0.0085	J C45	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-52	0.088	B	0.0098	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-53	0.0064	J C50	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-54	ND		0.0098	0.000016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-55	ND		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-56	0.024		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-57	ND		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-58	ND		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-59	0.0065	J C	0.029	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-60	0.0074	J	0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-61	0.11	C B	0.039	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-62	0.0065	J C59	0.029	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-63	0.0020	J q	0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-64	0.023		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-65	0.065	B C44	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-66	0.068		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-67	0.0016	J q	0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-68	0.0025	J B	0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-69	0.053	C49	0.020	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-70	0.11	C61 B	0.039	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-71	0.029	C40	0.029	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-72	0.0026	J	0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-73	0.0028	J C43 q	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-74	0.11	C61 B	0.039	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-75	0.0065	J C59	0.029	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-76	0.11	C61 B	0.039	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-77	0.0052	J	0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-78	ND		0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-79	0.0012	J	0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-80	ND		0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-81	ND		0.0098	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-82	0.013	q	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-83	0.12	C	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-84	0.039		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-85	0.030	C	0.029	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-86	0.10	C	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-87	0.10	C86	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-88	0.030	C	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-89	0.0021	J	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-90	0.17	C	0.029	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-91	0.030	C88	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-92	0.036		0.0098	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-93	0.0026	J C q	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-94	ND		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-95	0.13		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-96	ND		0.0098	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-97	0.10	C86	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-98	0.0035	J C	0.020	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B455

Lab Sample ID: 580-78527-15

Date Collected: 06/30/18 15:55

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.12	C83	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-100	0.0026	J C93 q	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-101	0.17	C90	0.029	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-102	0.0035	J C98	0.020	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-103	0.0022	J q	0.0098	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-104	ND		0.0098	0.000074	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-105	0.044		0.0098	0.00097	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-106	ND		0.0098	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-107	0.015		0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-108	0.0050	J C B q	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-109	0.10	C86	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-110	0.20	C B	0.020	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-111	ND		0.0098	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-112	ND		0.0098	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-113	0.17	C90	0.029	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-114	0.0028	J q	0.0098	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-115	0.20	B C110	0.020	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-116	0.030	C85	0.029	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-117	0.030	C85	0.029	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-118	0.14		0.0098	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-119	0.10	C86	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-120	0.0021	J q	0.0098	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-121	ND		0.0098	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-122	0.0024	J q	0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-123	0.0019	J q	0.0098	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-124	0.0050	J B q C108	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-125	0.10	C86	0.059	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-126	ND		0.0098	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-127	ND		0.0098	0.00098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-128	0.034	C	0.020	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-129	0.25	C B	0.039	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-130	0.018		0.0098	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-131	ND		0.0098	0.0020	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-132	0.075		0.0098	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-133	0.0034	J q	0.0098	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-134	0.015	J C	0.020	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-135	0.090	C	0.020	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-136	0.026		0.0098	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-137	0.0088	J	0.0098	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-138	0.25	B C129	0.039	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-139	0.0042	J C q	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-140	0.0042	J C139 q	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-141	0.043		0.0098	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-142	ND		0.0098	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-143	0.015	J C134	0.020	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-144	0.0067	J	0.0098	0.000065	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-145	ND		0.0098	0.000049	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-146	0.047		0.0098	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-147	0.22	C B	0.020	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B455

Lab Sample ID: 580-78527-15

Date Collected: 06/30/18 15:55

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00059	J q	0.0098	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-149	0.22	B C147	0.020	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-150	ND		0.0098	0.000047	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-151	0.090	C135	0.020	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-152	ND		0.0098	0.000051	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-153	0.22	C B	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-154	0.0035	J q	0.0098	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-155	ND		0.0098	0.000047	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-156	0.020	C B	0.020	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-157	0.020	C156 B	0.020	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-158	0.019		0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-159	ND		0.0098	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-160	0.25	B C129	0.039	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-161	ND		0.0098	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-162	ND		0.0098	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-163	0.25	B C129	0.039	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-164	0.015	q	0.0098	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-165	ND		0.0098	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-166	0.034	C128	0.020	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-167	0.0071	J	0.0098	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-168	0.22	B C153	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-169	ND		0.0098	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-170	0.066		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-171	0.022	C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-172	0.012		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-173	0.022	C171	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-174	0.057	q	0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-175	0.0027	J q	0.0098	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-176	0.0063	J q	0.0098	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-177	0.039		0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-178	0.012	q	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-179	0.028	q	0.0098	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-180	0.14	C B	0.020	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-181	ND		0.0098	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-182	ND		0.0098	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-183	0.042	C	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-184	ND		0.0098	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-185	0.042	C183	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-186	ND		0.0098	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-187	0.086		0.0098	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-188	ND		0.0098	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-189	ND		0.0098	0.000077	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-190	0.012	q	0.0098	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-191	0.0024	J q	0.0098	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-192	ND		0.0098	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-193	0.14	C180 B	0.020	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-194	0.031	B	0.0098	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-195	0.010	q	0.0098	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-196	0.011	q	0.0098	0.000021	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B455

Lab Sample ID: 580-78527-15

Date Collected: 06/30/18 15:55

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 59.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00078	J q	0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-198	0.035	C	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-199	0.035	C198	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-200	0.0037	J	0.0098	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-201	0.0041	J	0.0098	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-202	0.0060	J q	0.0098	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-203	0.021	B	0.0098	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-204	ND		0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-205	ND		0.0098	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-206	0.016		0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-207	ND		0.0098	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-208	0.0046	J q	0.0098	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
PCB-209	0.023		0.0098	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 04:28	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	67		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-3L	68		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-4L	76		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-15L	74		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-19L	87		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-37L	83		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-54L	80		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-77L	82		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-81L	83		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-104L	79		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-105L	88		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-114L	90		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-118L	86		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-123L	85		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-126L	85		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-155L	84		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-156L	81	C	30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-157L	81	C156	30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-167L	85		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-169L	88		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-170L	84		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-188L	89		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-189L	81		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-202L	101		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-205L	73		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-206L	82		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-208L	84		30 - 140				08/28/18 06:14	09/07/18 04:28	1
PCB-209L	79		30 - 140				08/28/18 06:14	09/07/18 04:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125				08/28/18 06:14	09/07/18 04:28	1
PCB-111L	90		40 - 125				08/28/18 06:14	09/07/18 04:28	1
PCB-178L	99		40 - 125				08/28/18 06:14	09/07/18 04:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000041	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-2	0.00063	J q B	0.010	0.000049	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-3	0.00042	J q	0.010	0.000055	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-4	ND		0.020	0.0043	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-5	ND		0.010	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-6	ND		0.010	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-7	ND		0.010	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-8	ND		0.020	0.0031	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-9	ND		0.010	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-10	ND		0.010	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-11	0.013	J B	0.020	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-12	ND	C	0.020	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-13	ND	C12	0.020	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-14	ND		0.010	0.0028	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-15	ND		0.010	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-16	ND		0.010	0.000080	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-17	ND		0.010	0.000072	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-18	0.0015	J C B	0.020	0.000063	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-19	ND		0.010	0.000088	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-20	0.0025	J q C	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-21	0.0015	J C B	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-22	0.0010	J	0.010	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-23	ND		0.010	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-24	ND		0.010	0.000061	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-25	ND		0.010	0.00027	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-26	ND	C	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-27	ND		0.010	0.000053	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-28	0.0025	J q C20	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-29	ND	C26	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-30	0.0015	J C18 B	0.020	0.000063	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-31	0.0026	J	0.020	0.00028	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-32	ND		0.010	0.000050	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-33	0.0015	J C21 B	0.020	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-34	ND		0.010	0.00031	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-35	ND		0.010	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-36	ND		0.010	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-37	0.0013	J	0.010	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-38	ND		0.010	0.00031	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-39	ND		0.010	0.00028	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-40	0.0026	J C	0.030	0.000085	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-41	0.0026	J C40	0.030	0.000085	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-42	0.0011	J q	0.010	0.000085	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-43	ND	C	0.020	0.000080	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-44	0.0062	J C B	0.030	0.000075	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-45	0.00063	J C	0.020	0.000089	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-46	ND		0.010	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-47	0.0062	J C44 B	0.030	0.000075	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-48	ND		0.010	0.000085	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1
PCB-49	0.0027	J C	0.020	0.000069	ng/g	✱	08/28/18 06:14	09/07/18 05:30	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.020	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-51	0.00063	J C45	0.020	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-52	0.0056	J B	0.010	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-53	ND	C50	0.020	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-54	ND		0.010	0.000016	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-55	ND		0.010	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-56	0.0017	J q	0.010	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-57	ND		0.010	0.000063	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-58	ND		0.010	0.000064	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-59	ND	C	0.030	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-60	0.00087	J q	0.010	0.000063	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-61	0.0076	J C B	0.040	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-62	ND	C59	0.030	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-63	ND		0.010	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-64	0.0023	J	0.010	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-65	0.0062	J C44 B	0.030	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-66	0.0044	J	0.010	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-67	ND		0.010	0.000054	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-68	ND		0.010	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-69	0.0027	J C49	0.020	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-70	0.0076	J C61 B	0.040	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-71	0.0026	J C40	0.030	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-72	ND		0.010	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-73	ND	C43	0.020	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-74	0.0076	J C61 B	0.040	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-75	ND	C59	0.030	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-76	0.0076	J C61 B	0.040	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-77	0.00037	J q	0.010	0.000061	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-78	ND		0.010	0.000064	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-79	ND		0.010	0.000055	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-80	ND		0.010	0.000054	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-81	ND		0.010	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-82	0.0013	J q	0.010	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-83	0.0070	J q C	0.020	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-84	ND		0.010	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-85	0.0025	J q C	0.030	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-86	0.0057	J q C	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-87	0.0057	J q C86	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-88	0.0013	J q C	0.020	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-89	ND		0.010	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-90	0.010	J C	0.030	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-91	0.0013	J q C88	0.020	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-92	0.0010	J q	0.010	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-93	ND	C	0.020	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-94	ND		0.010	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-95	0.0062	J q	0.010	0.000074	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-96	ND		0.010	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-97	0.0057	J q C86	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-98	ND	C	0.020	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0070	J q C83	0.020	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-100	ND	C93	0.020	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-101	0.010	J C90	0.030	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-102	ND	C98	0.020	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-103	ND		0.010	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-104	ND		0.010	0.000051	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-105	0.0045	J q	0.010	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-106	ND		0.010	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-107	0.0010	J q	0.010	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-108	ND	C	0.020	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-109	0.0057	J q C86	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-110	0.011	J q C B	0.020	0.000049	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-111	ND		0.010	0.000047	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-112	ND		0.010	0.000050	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-113	0.010	J C90	0.030	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-114	ND		0.010	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-115	0.011	J q C110 E	0.020	0.000049	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-116	0.0025	J q C85	0.030	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-117	0.0025	J q C85	0.030	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-118	0.011	q	0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-119	0.0057	J q C86	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-120	ND		0.010	0.000048	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-121	ND		0.010	0.000050	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-122	ND		0.010	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-123	ND		0.010	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-124	ND	C108	0.020	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-125	0.0057	J q C86	0.060	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-126	ND		0.010	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-127	ND		0.010	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-128	0.0033	J q C	0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-129	0.027	J C B	0.040	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-130	ND		0.010	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-131	ND		0.010	0.00053	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-132	0.0032	J q	0.010	0.00049	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-133	ND		0.010	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-134	0.00065	J q C	0.020	0.00050	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-135	0.0046	J q C	0.020	0.000016	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-136	0.00096	J q	0.010	0.000012	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-137	0.0011	J	0.010	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-138	0.027	J C129 B	0.040	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-139	ND	C	0.020	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-140	ND	C139	0.020	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-141	0.0042	J	0.010	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-142	ND		0.010	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-143	0.00065	J q C134	0.020	0.00050	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-144	0.00097	J q	0.010	0.000015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-145	ND		0.010	0.000011	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-146	0.0053	J	0.010	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-147	0.014	J q C B	0.020	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.010	0.000016	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-149	0.014	J q C147 B	0.020	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-150	ND		0.010	0.000011	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-151	0.0046	J q C135	0.020	0.000016	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-152	ND		0.010	0.000011	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-153	0.022	C B	0.020	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-154	ND		0.010	0.000013	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-155	ND		0.010	0.000011	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-156	0.0027	J C B	0.020	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-157	0.0027	J C156 B	0.020	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-158	0.0026	J	0.010	0.00030	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-159	ND		0.010	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-160	0.027	J C129 B	0.040	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-161	ND		0.010	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-162	ND		0.010	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-163	0.027	J C129 B	0.040	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-164	0.0012	J q	0.010	0.00034	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-165	ND		0.010	0.00036	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-166	0.0033	J q C128	0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-167	ND		0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-168	0.022	C153 B	0.020	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-169	ND		0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-170	0.0095	J	0.010	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-171	0.0014	J q C	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-172	0.00096	J	0.010	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-173	0.0014	J q C171	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-174	0.0081	J	0.010	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-175	ND		0.010	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-176	ND		0.010	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-177	0.0054	J	0.010	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-178	0.0027	J q	0.010	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-179	0.0023	J	0.010	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-180	0.018	J C B	0.020	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-181	ND		0.010	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-182	ND		0.010	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-183	0.0051	J q C	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-184	ND		0.010	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-185	0.0051	J q C183	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-186	ND		0.010	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-187	0.010	q	0.010	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-188	ND		0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-189	ND		0.010	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-190	0.0016	J q	0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-191	ND		0.010	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-192	ND		0.010	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-193	0.018	J C180 B	0.020	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-194	0.0045	J q B	0.010	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-195	0.0017	J q	0.010	0.00035	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-196	0.0019	J q	0.010	0.000077	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.010	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-198	0.0063	J C	0.020	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-199	0.0063	J C198	0.020	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-200	0.00069	J q	0.010	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-201	ND		0.010	0.000053	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-202	0.0012	J q	0.010	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-203	0.0028	J q B	0.010	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-204	ND		0.010	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-205	ND		0.010	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-206	0.0028	J	0.010	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-207	ND		0.010	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-208	0.00098	J q	0.010	0.00046	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1
PCB-209	0.0037	J	0.010	0.000013	ng/g	☼	08/28/18 06:14	09/07/18 05:30	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	75		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-3L	74		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-4L	80		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-15L	76		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-19L	95		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-37L	88		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-54L	82		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-77L	86		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-81L	86		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-104L	82		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-105L	92		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-114L	93		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-118L	91		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-123L	90		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-126L	89		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-155L	88		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-156L	89	C	30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-157L	89	C156	30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-167L	90		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-169L	94		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-170L	90		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-188L	92		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-189L	80		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-202L	107		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-205L	77		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-206L	89		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-208L	86		30 - 140	08/28/18 06:14	09/07/18 05:30	1
PCB-209L	86		30 - 140	08/28/18 06:14	09/07/18 05:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	101		40 - 125	08/28/18 06:14	09/07/18 05:30	1
PCB-111L	95		40 - 125	08/28/18 06:14	09/07/18 05:30	1
PCB-178L	104		40 - 125	08/28/18 06:14	09/07/18 05:30	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B454

Date Collected: 07/01/18 12:42

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-17

Matrix: Solid

Percent Solids: 58.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0013	J q	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-2	0.0034	J B	0.0099	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-3	0.0013	J q	0.0099	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-4	ND		0.020	0.0045	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-5	ND		0.0099	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-6	ND		0.0099	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-7	ND		0.0099	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-8	0.0054	J q	0.020	0.0031	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-9	ND		0.0099	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-10	ND		0.0099	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-11	0.051	B	0.020	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-12	ND	C	0.020	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-13	ND	C12	0.020	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-14	ND		0.0099	0.0029	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-15	0.0055	J q	0.0099	0.0036	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-16	0.0035	J q	0.0099	0.00027	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-17	0.0058	J q	0.0099	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-18	0.0084	J q C B	0.020	0.00021	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-19	0.0012	J q	0.0099	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-20	0.026	C	0.020	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-21	0.0077	J q C B	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-22	0.0079	J	0.0099	0.00051	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-23	ND		0.0099	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-24	ND		0.0099	0.00020	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-25	0.0016	J q	0.0099	0.00046	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-26	0.0039	J C	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-27	0.0013	J q	0.0099	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-28	0.026	C20	0.020	0.00050	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-29	0.0039	J C26	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-30	0.0084	J q C18 B	0.020	0.00021	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-31	0.019	J	0.020	0.00048	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-32	0.0045	J q B	0.0099	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-33	0.0077	J q C21 B	0.020	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-34	ND		0.0099	0.00052	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-35	ND		0.0099	0.00051	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-36	ND		0.0099	0.00049	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-37	0.0065	J q	0.0099	0.00051	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-38	ND		0.0099	0.00053	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-39	ND		0.0099	0.00047	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-40	0.017	J C	0.030	0.000097	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-41	0.017	J C40	0.030	0.000097	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-42	0.0060	J	0.0099	0.000098	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-43	0.0017	J q C	0.020	0.000091	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-44	0.040	C B	0.030	0.000086	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-45	0.0052	J C	0.020	0.00010	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-46	ND		0.0099	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-47	0.040	C44 B	0.030	0.000086	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-48	0.0034	J q	0.0099	0.000097	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1
PCB-49	0.024	C	0.020	0.000080	ng/g	✱	08/28/18 06:14	09/07/18 06:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B454

Lab Sample ID: 580-78527-17

Date Collected: 07/01/18 12:42

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0042	J C	0.020	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-51	0.0052	J C45	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-52	0.050	B	0.0099	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-53	0.0042	J C50	0.020	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-54	ND		0.0099	0.000015	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-55	ND		0.0099	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-56	0.015		0.0099	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-57	ND		0.0099	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-58	ND		0.0099	0.000073	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-59	0.0032	J C	0.030	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-60	0.0058	J q	0.0099	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-61	0.065	C B	0.040	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-62	0.0032	J C59	0.030	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-63	0.0013	J q	0.0099	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-64	0.013		0.0099	0.000065	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-65	0.040	C44 B	0.030	0.000086	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-66	0.037		0.0099	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-67	0.00083	J	0.0099	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-68	0.0014	J q B	0.0099	0.000064	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-69	0.024	C49	0.020	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-70	0.065	C61 B	0.040	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-71	0.017	J C40	0.030	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-72	0.00076	J q	0.0099	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-73	0.0017	J q C43	0.020	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-74	0.065	C61 B	0.040	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-75	0.0032	J C59	0.030	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-76	0.065	C61 B	0.040	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-77	0.0048	J	0.0099	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-78	ND		0.0099	0.000073	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-79	0.00083	J q	0.0099	0.000063	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-80	ND		0.0099	0.000062	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-81	ND		0.0099	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-82	0.0097	J	0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-83	0.060	C	0.020	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-84	0.018		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-85	0.017	J C	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-86	0.018	J q C	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-87	0.018	J q C86	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-88	0.012	J q C	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-89	ND		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-90	0.085	C	0.030	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-91	0.012	J q C88	0.020	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-92	0.015		0.0099	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-93	ND	C	0.020	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-94	ND		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-95	0.064		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-96	ND		0.0099	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-97	0.018	J q C86	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-98	0.0017	J q C	0.020	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B454

Lab Sample ID: 580-78527-17

Date Collected: 07/01/18 12:42

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.060	C83	0.020	0.000099	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-100	ND	C93	0.020	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-101	0.085	C90	0.030	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-102	0.0017	J q C98	0.020	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-103	ND		0.0099	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-104	ND		0.0099	0.000071	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-105	0.030		0.0099	0.000073	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-106	ND		0.0099	0.000074	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-107	0.0058	J q	0.0099	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-108	0.0035	J C B	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-109	0.018	J q C86	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-110	0.089	q C B	0.020	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-111	ND		0.0099	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-112	ND		0.0099	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-113	0.085	C90	0.030	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-114	ND		0.0099	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-115	0.089	q C110 B	0.020	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-116	0.017	J C85	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-117	0.017	J C85	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-118	0.079		0.0099	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-119	0.018	J q C86	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-120	ND		0.0099	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-121	ND		0.0099	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-122	0.0021	J q	0.0099	0.000086	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-123	0.0023	J	0.0099	0.000073	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-124	0.0035	J C108 B	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-125	0.018	J q C86	0.059	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-126	ND		0.0099	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-127	ND		0.0099	0.000074	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-128	0.019	J C	0.020	0.000088	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-129	0.14	C B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-130	0.0092	J	0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-131	ND		0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-132	0.032		0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-133	ND		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-134	0.0039	J q C	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-135	0.031	C	0.020	0.000031	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-136	0.0090	J	0.0099	0.000022	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-137	0.0047	J q	0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-138	0.14	C129 B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-139	0.0020	J C	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-140	0.0020	J C139	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-141	0.014	q	0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-142	ND		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-143	0.0039	J q C134	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-144	0.0030	J q	0.0099	0.000028	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-145	ND		0.0099	0.000021	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-146	0.022		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-147	0.099	C B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B454

Lab Sample ID: 580-78527-17

Date Collected: 07/01/18 12:42

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.000030	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-149	0.099	C147 B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-150	ND		0.0099	0.000021	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-151	0.031	C135	0.020	0.000031	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-152	ND		0.0099	0.000022	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-153	0.11	C B	0.020	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-154	0.010		0.0099	0.000024	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-155	ND		0.0099	0.000021	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-156	0.013	J C B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-157	0.013	J C156 B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-158	0.013		0.0099	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-159	ND		0.0099	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-160	0.14	C129 B	0.040	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-161	ND		0.0099	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-162	ND		0.0099	0.00074	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-163	0.14	C129 B	0.040	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-164	0.0086	J	0.0099	0.00080	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-165	ND		0.0099	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-166	0.019	J C128	0.020	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-167	0.0058	J	0.0099	0.00054	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-168	0.11	C153 B	0.020	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-169	ND		0.0099	0.00054	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-170	0.028	q	0.0099	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-171	0.0063	J q C	0.020	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-172	0.0058	J	0.0099	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-173	0.0063	J q C171	0.020	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-174	0.034		0.0099	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-175	0.0020	J	0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-176	0.0030	J q	0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-177	0.018	q	0.0099	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-178	0.0094	J	0.0099	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-179	0.014		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-180	0.071	C B	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-181	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-182	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-183	0.021	C	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-184	ND		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-185	0.021	C183	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-186	ND		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-187	0.051		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-188	ND		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-189	ND		0.0099	0.00046	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-190	0.0067	J	0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-191	0.0013	J q	0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-192	ND		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-193	0.071	C180 B	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-194	0.018	B	0.0099	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-195	0.0092	J	0.0099	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-196	0.0081	J	0.0099	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B454

Lab Sample ID: 580-78527-17

Date Collected: 07/01/18 12:42

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0099	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-198	0.025	C	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-199	0.025	C198	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-200	0.0015	J q	0.0099	0.000051	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-201	ND		0.0099	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-202	0.0049	J	0.0099	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-203	0.014	q B	0.0099	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-204	ND		0.0099	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-205	ND		0.0099	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-206	0.012		0.0099	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-207	0.0019	J q	0.0099	0.00047	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-208	0.0035	J q	0.0099	0.00047	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
PCB-209	0.020		0.0099	0.000043	ng/g	☼	08/28/18 06:14	09/07/18 06:31	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	70		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-3L	73		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-4L	79		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-15L	82		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-19L	92		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-37L	86		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-54L	84		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-77L	86		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-81L	83		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-104L	80		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-105L	92		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-114L	92		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-118L	91		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-123L	89		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-126L	87		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-155L	86		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-156L	84	C	30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-157L	84	C156	30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-167L	89		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-169L	92		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-170L	86		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-188L	90		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-189L	85		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-202L	99		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-205L	78		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-206L	86		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-208L	87		30 - 140				08/28/18 06:14	09/07/18 06:31	1
PCB-209L	81		30 - 140				08/28/18 06:14	09/07/18 06:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				08/28/18 06:14	09/07/18 06:31	1
PCB-111L	92		40 - 125				08/28/18 06:14	09/07/18 06:31	1
PCB-178L	101		40 - 125				08/28/18 06:14	09/07/18 06:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0013	J q	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-2	0.0034	J B	0.0099	0.00016	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-3	0.0020	J	0.0099	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-4	0.0052	J q	0.020	0.0045	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-5	ND		0.0099	0.0036	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-6	0.0040	J q	0.0099	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-7	ND		0.0099	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-8	0.0088	J q	0.020	0.0029	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-9	ND		0.0099	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-10	ND		0.0099	0.0036	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-11	0.045	B	0.020	0.0031	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-12	ND	C	0.020	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-13	ND	C12	0.020	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-14	ND		0.0099	0.0027	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-15	0.0081	J q	0.0099	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-16	0.0056	J q	0.0099	0.00020	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-17	0.0072	J q	0.0099	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-18	0.019	J C B	0.020	0.00016	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-19	ND		0.0099	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-20	0.036	C	0.020	0.00065	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-21	0.013	J C B	0.020	0.00063	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-22	0.011		0.0099	0.00066	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-23	ND		0.0099	0.00066	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-24	ND		0.0099	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-25	0.0030	J q	0.0099	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-26	0.0060	J C	0.020	0.00064	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-27	0.0019	J q	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-28	0.036	C20	0.020	0.00065	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-29	0.0060	J C26	0.020	0.00064	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-30	0.019	J C18 B	0.020	0.00016	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-31	0.027		0.020	0.00063	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-32	0.0062	J B	0.0099	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-33	0.013	J C21 B	0.020	0.00063	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-34	ND		0.0099	0.00068	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-35	ND		0.0099	0.00067	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-36	ND		0.0099	0.00064	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-37	0.011		0.0099	0.00066	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-38	ND		0.0099	0.00069	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-39	ND		0.0099	0.00062	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-40	0.015	J q C	0.030	0.000081	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-41	0.015	J q C40	0.030	0.000081	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-42	0.012		0.0099	0.000081	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-43	0.0027	J C	0.020	0.000076	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-44	0.044	C B	0.030	0.000072	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-45	0.0063	J C	0.020	0.000085	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-46	0.0022	J q	0.0099	0.00010	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-47	0.044	C44 B	0.030	0.000072	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-48	0.0064	J	0.0099	0.000081	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1
PCB-49	0.035	C	0.020	0.000066	ng/g	✱	08/28/18 06:14	09/07/18 07:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0048	J q C	0.020	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-51	0.0063	J C45	0.020	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-52	0.070	B	0.0099	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-53	0.0048	J q C50	0.020	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-54	ND		0.0099	0.000019	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-55	0.0011	J q	0.0099	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-56	0.017	q	0.0099	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-57	ND		0.0099	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-58	ND		0.0099	0.000061	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-59	0.0022	J q C	0.030	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-60	0.010		0.0099	0.000060	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-61	0.087	C B	0.040	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-62	0.0022	J q C59	0.030	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-63	0.0019	J q	0.0099	0.000055	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-64	0.020		0.0099	0.000054	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-65	0.044	C44 B	0.030	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-66	0.054		0.0099	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-67	0.00091	J	0.0099	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-68	0.00074	J q B	0.0099	0.000053	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-69	0.035	C49	0.020	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-70	0.087	C61 B	0.040	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-71	0.015	J q C40	0.030	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-72	0.00083	J q	0.0099	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-73	0.0027	J C43	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-74	0.087	C61 B	0.040	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-75	0.0022	J q C59	0.030	0.000057	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-76	0.087	C61 B	0.040	0.000056	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-77	0.0079	J	0.0099	0.000058	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-78	ND		0.0099	0.000061	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-79	0.0011	J q	0.0099	0.000053	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-80	ND		0.0099	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-81	ND		0.0099	0.000054	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-82	0.017		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-83	0.092	C	0.020	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-84	0.029		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-85	0.035	C	0.030	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-86	0.099	C	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-87	0.099	C86	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-88	0.019	J C	0.020	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-89	ND		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-90	0.25	C	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-91	0.019	J C88	0.020	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-92	0.037		0.0099	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-93	0.0040	J q C	0.020	0.000092	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-94	ND		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-95	0.18		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-96	ND		0.0099	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-97	0.099	C86	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-98	0.0034	J q C	0.020	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.092	C83	0.020	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-100	0.0040	J q C93	0.020	0.000092	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-101	0.25	C90	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-102	0.0034	J q C98	0.020	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-103	ND		0.0099	0.000092	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-104	ND		0.0099	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-105	0.052		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-106	ND		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-107	0.011		0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-108	0.0052	J q C B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-109	0.099	C86	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-110	0.22	C B	0.020	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-111	ND		0.0099	0.000065	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-112	ND		0.0099	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-113	0.25	C90	0.030	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-114	0.0021	J q	0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-115	0.22	C110 B	0.020	0.000067	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-116	0.035	C85	0.030	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-117	0.035	C85	0.030	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-118	0.12		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-119	0.099	C86	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-120	0.0015	J q	0.0099	0.000066	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-121	ND		0.0099	0.000068	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-122	ND		0.0099	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-123	0.0036	J	0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-124	0.0052	J q C108 E	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-125	0.099	C86	0.059	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-126	ND		0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-127	ND		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-128	0.061	C	0.020	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-129	0.72	C B	0.040	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-130	0.024		0.0099	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-131	ND		0.0099	0.0030	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-132	0.19		0.0099	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-133	0.0076	J	0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-134	0.028	q C	0.020	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-135	0.32	C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-136	0.090		0.0099	0.000082	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-137	0.0092	J	0.0099	0.0025	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-138	0.72	C129 B	0.040	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-139	ND	C	0.020	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-140	ND	C139	0.020	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-141	0.21		0.0099	0.0026	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-142	ND		0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-143	0.028	q C134	0.020	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-144	0.044		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-145	ND		0.0099	0.000078	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-146	0.11		0.0099	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-147	0.73	C B	0.020	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-149	0.73	C147 B	0.020	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-150	ND		0.0099	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-151	0.32	C135	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-152	ND		0.0099	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-153	0.74	C B	0.020	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-154	0.019	q	0.0099	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-155	ND		0.0099	0.000075	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-156	0.048	C B	0.020	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-157	0.048	C156 B	0.020	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-158	0.067		0.0099	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-159	0.011		0.0099	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-160	0.72	C129 B	0.040	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-161	ND		0.0099	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-162	ND		0.0099	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-163	0.72	C129 B	0.040	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-164	0.053		0.0099	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-165	ND		0.0099	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-166	0.061	C128	0.020	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-167	0.019		0.0099	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-168	0.74	C153 B	0.020	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-169	0.0048	J q	0.0099	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-170	0.44		0.0099	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-171	0.12	C	0.020	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-172	0.084		0.0099	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-173	0.12	C171	0.020	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-174	0.49		0.0099	0.00039	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-175	0.017		0.0099	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-176	0.055		0.0099	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-177	0.26		0.0099	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-178	0.094		0.0099	0.00041	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-179	0.18		0.0099	0.00030	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-180	1.1	C B	0.020	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-181	ND		0.0099	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-182	ND		0.0099	0.00036	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-183	0.33	C	0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-184	ND		0.0099	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-185	0.33	C183	0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-186	ND		0.0099	0.00030	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-187	0.56		0.0099	0.00035	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-188	ND		0.0099	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-189	0.011	q	0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-190	0.090		0.0099	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-191	0.023		0.0099	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-192	ND		0.0099	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-193	1.1	C180 B	0.020	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-194	0.31	B	0.0099	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-195	0.12		0.0099	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-196	0.13		0.0099	0.00041	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.011		0.0099	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-198	0.28	C	0.020	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-199	0.28	C198	0.020	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-200	0.029		0.0099	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-201	0.027		0.0099	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-202	0.041		0.0099	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-203	0.16	B	0.0099	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-204	ND		0.0099	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-205	0.015		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-206	0.083		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-207	0.0062	J q	0.0099	0.00074	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-208	0.016		0.0099	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
PCB-209	0.034		0.0099	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 07:33	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	64		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-3L	65		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-4L	70		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-15L	70		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-19L	76		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-37L	75		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-54L	69		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-77L	76		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-81L	78		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-104L	68		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-105L	81		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-114L	81		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-118L	80		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-123L	78		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-126L	74		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-155L	71		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-156L	67	C	30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-157L	67	C156	30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-167L	77		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-169L	79		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-170L	76		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-188L	80		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-189L	71		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-202L	94		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-205L	64		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-206L	73		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-208L	74		30 - 140				08/28/18 06:14	09/07/18 07:33	1
PCB-209L	66		30 - 140				08/28/18 06:14	09/07/18 07:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125				08/28/18 06:14	09/07/18 07:33	1
PCB-111L	97		40 - 125				08/28/18 06:14	09/07/18 07:33	1
PCB-178L	102		40 - 125				08/28/18 06:14	09/07/18 07:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0016	J q	0.0099	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-2	0.0031	J B	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-3	0.0013	J q	0.0099	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-4	0.0065	J q	0.020	0.0046	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-5	ND		0.0099	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-6	0.0044	J q	0.0099	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-7	ND		0.0099	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-8	0.011	J	0.020	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-9	ND		0.0099	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-10	ND		0.0099	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-11	0.034	q B	0.020	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-12	ND	C	0.020	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-13	ND	C12	0.020	0.0033	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-14	ND		0.0099	0.0028	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-15	0.0073	J q	0.0099	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-16	0.0052	J	0.0099	0.00028	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-17	0.0073	J	0.0099	0.00026	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-18	0.017	J q C B	0.020	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-19	0.0015	J q	0.0099	0.00031	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-20	0.035	C	0.020	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-21	0.012	J C B	0.020	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-22	0.0088	J	0.0099	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-23	ND		0.0099	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-24	ND		0.0099	0.00021	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-25	0.0038	J q	0.0099	0.00051	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-26	0.0065	J C	0.020	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-27	ND		0.0099	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-28	0.035	C20	0.020	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-29	0.0065	J C26	0.020	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-30	0.017	J q C18 B	0.020	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-31	0.024		0.020	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-32	0.0059	J B	0.0099	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-33	0.012	J C21 B	0.020	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-34	ND		0.0099	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-35	0.0012	J	0.0099	0.00057	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-36	ND		0.0099	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-37	0.0072	J q	0.0099	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-38	ND		0.0099	0.00059	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-39	ND		0.0099	0.00052	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-40	0.016	J C	0.030	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-41	0.016	J C40	0.030	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-42	0.0080	J q	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-43	0.0022	J q C	0.020	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-44	0.046	C B	0.030	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-45	0.0055	J q C	0.020	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-46	0.0018	J	0.0099	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-47	0.046	C44 B	0.030	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-48	0.0057	J q	0.0099	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1
PCB-49	0.029	q C	0.020	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 08:34	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0041	J C	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-51	0.0055	J q C45	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-52	0.063	B	0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-53	0.0041	J C50	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-54	ND		0.0099	0.000023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-55	0.00066	J q	0.0099	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-56	0.017		0.0099	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-57	ND		0.0099	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-58	ND		0.0099	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-59	0.0036	J C	0.030	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-60	0.0083	J	0.0099	0.000097	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-61	0.075	C B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-62	0.0036	J C59	0.030	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-63	0.0014	J q	0.0099	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-64	0.017		0.0099	0.000088	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-65	0.046	C44 B	0.030	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-66	0.044		0.0099	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-67	0.00082	J	0.0099	0.000084	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-68	0.0014	J q B	0.0099	0.000086	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-69	0.029	q C49	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-70	0.075	C61 B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-71	0.016	J C40	0.030	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-72	0.00085	J q	0.0099	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-73	0.0022	J q C43	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-74	0.075	C61 B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-75	0.0036	J C59	0.030	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-76	0.075	C61 B	0.040	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-77	0.0056	J	0.0099	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-78	ND		0.0099	0.000098	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-79	ND		0.0099	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-80	ND		0.0099	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-81	0.00086	J q	0.0099	0.000088	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-82	0.011		0.0099	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-83	0.075	C	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-84	0.028		0.0099	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-85	0.026	J C	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-86	0.073	C	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-87	0.073	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-88	0.019	J C	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-89	ND		0.0099	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-90	0.11	C	0.030	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-91	0.019	J C88	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-92	0.019		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-93	0.0020	J q C	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-94	ND		0.0099	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-95	0.088		0.0099	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-96	ND		0.0099	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-97	0.073	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-98	0.0025	J q C	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.075	C83	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-100	0.0020	J q C93	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-101	0.11	C90	0.030	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-102	0.0025	J q C98	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-103	ND		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-104	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-105	0.042		0.0099	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-106	ND		0.0099	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-107	0.011		0.0099	0.00095	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-108	0.0063	J C B	0.020	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-109	0.073	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-110	0.14	C B	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-111	ND		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-112	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-113	0.11	C90	0.030	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-114	0.0029	J	0.0099	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-115	0.14	C110 B	0.020	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-116	0.026	J C85	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-117	0.026	J C85	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-118	0.11		0.0099	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-119	0.073	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-120	0.0010	J q	0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-121	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-122	0.0023	J	0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-123	0.0027	J	0.0099	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-124	0.0063	J C108 B	0.020	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-125	0.073	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-126	ND		0.0099	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-127	ND		0.0099	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-128	0.028	C	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-129	0.20	C B	0.040	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-130	0.014		0.0099	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-131	ND		0.0099	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-132	0.044		0.0099	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-133	ND		0.0099	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-134	0.0072	J q C	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-135	0.051	C	0.020	0.000033	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-136	0.013		0.0099	0.000024	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-137	0.0073	J q	0.0099	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-138	0.20	C129 B	0.040	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-139	ND	C	0.020	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-140	ND	C139	0.020	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-141	0.030		0.0099	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-142	ND		0.0099	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-143	0.0072	J q C134	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-144	0.0067	J	0.0099	0.000030	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-145	ND		0.0099	0.000023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-146	0.030		0.0099	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-147	0.14	C B	0.020	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.000032	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-149	0.14	C147 B	0.020	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-150	ND		0.0099	0.000022	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-151	0.051	C135	0.020	0.000033	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-152	ND		0.0099	0.000023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-153	0.16	C B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-154	0.0022	J q	0.0099	0.000026	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-155	ND		0.0099	0.000022	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-156	0.020	C B	0.020	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-157	0.020	C156 B	0.020	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-158	0.017		0.0099	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-159	ND		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-160	0.20	C129 B	0.040	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-161	ND		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-162	ND		0.0099	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-163	0.20	C129 B	0.040	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-164	0.013		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-165	ND		0.0099	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-166	0.028	C128	0.020	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-167	0.0072	J	0.0099	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-168	0.16	C153 B	0.020	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-169	ND		0.0099	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-170	0.045		0.0099	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-171	0.011	J q C	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-172	0.0087	J	0.0099	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-173	0.011	J q C171	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-174	0.036	q	0.0099	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-175	ND		0.0099	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-176	0.0037	J q	0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-177	0.027		0.0099	0.00025	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-178	0.0097	J	0.0099	0.00026	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-179	0.020		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-180	0.093	C B	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-181	ND		0.0099	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-182	ND		0.0099	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-183	0.031	C	0.020	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-184	ND		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-185	0.031	C183	0.020	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-186	ND		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-187	0.063		0.0099	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-188	ND		0.0099	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-189	0.0018	J	0.0099	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-190	0.0083	J q	0.0099	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-191	0.0011	J q	0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-192	ND		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-193	0.093	C180 B	0.020	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-194	0.020	B	0.0099	0.00034	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-195	0.0078	J q	0.0099	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-196	0.0097	J	0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0012	J	0.0099	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-198	0.027	q C	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-199	0.027	q C198	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-200	0.0016	J q	0.0099	0.000070	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-201	0.0025	J	0.0099	0.000072	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-202	0.0068	J	0.0099	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-203	0.016	B	0.0099	0.000093	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-204	ND		0.0099	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-205	0.0015	J	0.0099	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-206	0.020		0.0099	0.00080	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-207	ND		0.0099	0.00056	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-208	0.0084	J	0.0099	0.00057	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
PCB-209	0.028	q	0.0099	0.000061	ng/g	☼	08/28/18 06:14	09/07/18 08:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	72		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-3L	75		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-4L	80		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-15L	83		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-19L	89		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-37L	87		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-54L	84		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-77L	86		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-81L	85		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-104L	81		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-105L	93		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-114L	94		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-118L	92		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-123L	90		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-126L	86		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-155L	88		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-156L	78	C	30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-157L	78	C156	30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-167L	91		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-169L	91		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-170L	86		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-188L	89		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-189L	85		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-202L	108		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-205L	75		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-206L	84		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-208L	89		30 - 140				08/28/18 06:14	09/07/18 08:34	1
PCB-209L	81		30 - 140				08/28/18 06:14	09/07/18 08:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	98		40 - 125				08/28/18 06:14	09/07/18 08:34	1
PCB-111L	96		40 - 125				08/28/18 06:14	09/07/18 08:34	1
PCB-178L	100		40 - 125				08/28/18 06:14	09/07/18 08:34	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B452

Date Collected: 07/01/18 15:13

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-20

Matrix: Solid

Percent Solids: 54.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000092	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-2	0.0017	J q B	0.010	0.00010	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-3	ND		0.010	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-4	ND		0.020	0.0051	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-5	ND		0.010	0.0043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-6	ND		0.010	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-7	ND		0.010	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-8	0.0039	J q	0.020	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-9	ND		0.010	0.0039	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-10	ND		0.010	0.0042	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-11	0.024	q B	0.020	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-12	ND	C	0.020	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-13	ND	C12	0.020	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-14	ND		0.010	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-15	0.0048	J q	0.010	0.0041	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-16	0.0038	J	0.010	0.000091	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-17	0.0036	J	0.010	0.000081	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-18	0.0063	J q C B	0.020	0.000072	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-19	0.0017	J q	0.010	0.00010	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-20	0.014	J q C	0.020	0.00044	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-21	0.0057	J C B	0.020	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-22	0.0045	J	0.010	0.00045	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-23	ND		0.010	0.00045	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-24	ND		0.010	0.000068	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-25	0.0020	J q	0.010	0.00041	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-26	0.0032	J q C	0.020	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-27	ND		0.010	0.000059	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-28	0.014	J q C20	0.020	0.00044	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-29	0.0032	J q C26	0.020	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-30	0.0063	J q C18 B	0.020	0.000072	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-31	0.014	J	0.020	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-32	0.0019	J q B	0.010	0.000057	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-33	0.0057	J C21 B	0.020	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-34	ND		0.010	0.00046	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-35	ND		0.010	0.00045	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-36	ND		0.010	0.00043	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-37	0.0052	J q	0.010	0.00045	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-38	ND		0.010	0.00047	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-39	ND		0.010	0.00042	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-40	0.0083	J C	0.030	0.00074	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-41	0.0083	J C40	0.030	0.00074	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-42	0.0046	J q	0.010	0.00074	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-43	ND	C	0.020	0.00069	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-44	0.027	J C B	0.030	0.00065	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-45	0.0027	J q C	0.020	0.00077	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-46	ND		0.010	0.00094	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-47	0.027	J C44 B	0.030	0.00065	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-48	0.0032	J q	0.010	0.00074	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1
PCB-49	0.016	J q C	0.020	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 13:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B452

Lab Sample ID: 580-78527-20

Date Collected: 07/01/18 15:13

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.0

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	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-51	0.0027	J q C45	0.020	0.00077	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-52	0.035	B	0.010	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-53	0.0025	J C50	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-54	ND		0.010	0.000031	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-55	ND		0.010	0.00054	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-56	0.012		0.010	0.00054	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-57	ND		0.010	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-58	0.0010	J q	0.010	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-59	ND	C	0.030	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-60	0.0035	J	0.010	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-61	0.046	C B	0.040	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-62	ND	C59	0.030	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-63	ND		0.010	0.00050	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-64	0.011		0.010	0.00049	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-65	0.027	J C44 B	0.030	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-66	0.025		0.010	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-67	ND		0.010	0.00047	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-68	0.0012	J B	0.010	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-69	0.016	J q C49	0.020	0.00060	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-70	0.046	C61 B	0.040	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-71	0.0083	J C40	0.030	0.00074	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-72	ND		0.010	0.00053	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-73	ND	C43	0.020	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-74	0.046	C61 B	0.040	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-75	ND	C59	0.030	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-76	0.046	C61 B	0.040	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-77	0.0028	J q	0.010	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-78	ND		0.010	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-79	ND		0.010	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-80	ND		0.010	0.00047	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-81	ND		0.010	0.00051	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-82	0.011	q	0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-83	0.033	q C	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-84	0.012		0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-85	0.013	J q C	0.030	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-86	0.033	J q C	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-87	0.033	J q C86	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-88	0.0055	J q C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-89	ND		0.010	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-90	0.058	C	0.030	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-91	0.0055	J q C88	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-92	0.0093	J	0.010	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-93	0.0010	J q C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-94	ND		0.010	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-95	0.044		0.010	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-96	ND		0.010	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-97	0.033	J q C86	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-98	0.0021	J q C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B452

Lab Sample ID: 580-78527-20

Date Collected: 07/01/18 15:13

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.033	q C83	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-100	0.0010	J q C93	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-101	0.058	C90	0.030	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-102	0.0021	J q C98	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-103	ND		0.010	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-104	ND		0.010	0.000083	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-105	0.023		0.010	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-106	ND		0.010	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-107	0.0039	J q	0.010	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-108	ND	C	0.020	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-109	0.033	J q C86	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-110	0.072	C B	0.020	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-111	ND		0.010	0.000077	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-112	ND		0.010	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-113	0.058	C90	0.030	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-114	ND		0.010	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-115	0.072	C110 B	0.020	0.000080	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-116	0.013	J q C85	0.030	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-117	0.013	J q C85	0.030	0.000094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-118	0.063		0.010	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-119	0.033	J q C86	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-120	ND		0.010	0.000079	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-121	ND		0.010	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-122	ND		0.010	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-123	0.0016	J q	0.010	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-124	ND	C108	0.020	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-125	0.033	J q C86	0.060	0.000095	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-126	ND		0.010	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-127	ND		0.010	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-128	0.017	J C	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-129	0.13	C B	0.040	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-130	0.0073	J	0.010	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-131	ND		0.010	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-132	0.027		0.010	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-133	ND		0.010	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-134	0.0044	J q C	0.020	0.00097	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-135	0.027	C	0.020	0.000028	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-136	0.0070	J q	0.010	0.000020	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-137	0.0043	J	0.010	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-138	0.13	C129 B	0.040	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-139	ND	C	0.020	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-140	ND	C139	0.020	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-141	0.017		0.010	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-142	ND		0.010	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-143	0.0044	J q C134	0.020	0.00097	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-144	ND		0.010	0.000026	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-145	ND		0.010	0.000019	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-146	0.015	q	0.010	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-147	0.073	C B	0.020	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B452

Lab Sample ID: 580-78527-20

Date Collected: 07/01/18 15:13

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.010	0.000027	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-149	0.073	C147 B	0.020	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-150	ND		0.010	0.000019	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-151	0.027	C135	0.020	0.000028	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-152	ND		0.010	0.000020	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-153	0.098	C B	0.020	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-154	0.0042	J q	0.010	0.000022	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-155	ND		0.010	0.000019	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-156	0.013	J C B	0.020	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-157	0.013	J C156 B	0.020	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-158	0.010		0.010	0.00059	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-159	ND		0.010	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-160	0.13	C129 B	0.040	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-161	ND		0.010	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-162	ND		0.010	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-163	0.13	C129 B	0.040	0.00075	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-164	0.0076	J	0.010	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-165	ND		0.010	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-166	0.017	J C128	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-167	0.0051	J	0.010	0.00044	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-168	0.098	C153 B	0.020	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-169	0.00073	J q	0.010	0.00045	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-170	0.030		0.010	0.00035	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-171	0.0050	J q C	0.020	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-172	ND		0.010	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-173	0.0050	J q C171	0.020	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-174	0.030		0.010	0.00030	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-175	ND		0.010	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-176	0.0035	J	0.010	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-177	0.016	q	0.010	0.00030	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-178	0.0061	J	0.010	0.00031	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-179	0.013		0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-180	0.069	C B	0.020	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-181	ND		0.010	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-182	ND		0.010	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-183	0.025	C	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-184	ND		0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-185	0.025	C183	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-186	ND		0.010	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-187	0.049		0.010	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-188	ND		0.010	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-189	ND		0.010	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-190	0.0074	J	0.010	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-191	0.0011	J q	0.010	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-192	ND		0.010	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-193	0.069	C180 B	0.020	0.00024	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-194	0.016	B	0.010	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-195	0.0066	J q	0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-196	0.0076	J q	0.010	0.000048	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B452

Lab Sample ID: 580-78527-20

Date Collected: 07/01/18 15:13

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.010	0.000037	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-198	0.026	C	0.020	0.000049	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-199	0.026	C198	0.020	0.000049	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-200	ND		0.010	0.000033	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-201	0.0026	J	0.010	0.000034	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-202	0.0060	J	0.010	0.000038	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-203	0.014	q B	0.010	0.000044	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-204	ND		0.010	0.000037	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-205	ND		0.010	0.00010	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-206	0.018	q	0.010	0.00013	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-207	0.0015	J q	0.010	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-208	0.0069	J	0.010	0.000091	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
PCB-209	0.019		0.010	0.000024	ng/g	☼	08/28/18 06:14	09/07/18 13:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	79		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-3L	77		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-4L	83		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-15L	81		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-19L	84		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-37L	88		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-54L	67		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-77L	85		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-81L	80		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-104L	85		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-105L	92		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-114L	94		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-118L	93		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-123L	90		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-126L	87		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-155L	82		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-156L	83	C	30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-157L	83	C156	30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-167L	85		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-169L	87		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-170L	88		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-188L	101		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-189L	88		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-202L	111		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-205L	77		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-206L	83		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-208L	90		30 - 140				08/28/18 06:14	09/07/18 13:25	1
PCB-209L	76		30 - 140				08/28/18 06:14	09/07/18 13:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	98		40 - 125				08/28/18 06:14	09/07/18 13:25	1
PCB-111L	96		40 - 125				08/28/18 06:14	09/07/18 13:25	1
PCB-178L	114		40 - 125				08/28/18 06:14	09/07/18 13:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Date Collected: 07/01/18 15:30

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-21

Matrix: Solid

Percent Solids: 53.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.017		0.0099	0.00050	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-2	0.0052	J q B	0.0099	0.00055	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-3	0.016	q	0.0099	0.00058	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-4	0.036		0.020	0.0043	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-5	ND		0.0099	0.0034	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-6	0.033		0.0099	0.0029	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-7	0.010	q	0.0099	0.0030	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-8	0.13		0.020	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-9	0.010	q	0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-10	ND		0.0099	0.0033	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-11	0.042	q B	0.020	0.0029	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-12	0.030	q C	0.020	0.0030	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-13	0.030	q C12	0.020	0.0030	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-14	ND		0.0099	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-15	0.11		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-16	0.14		0.0099	0.00036	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-17	0.22		0.0099	0.00032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-18	0.41	C B	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-19	0.030		0.0099	0.00039	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-20	0.93	C	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-21	0.40	C B	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-22	0.21		0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-23	ND		0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-24	0.0064	J	0.0099	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-25	0.067		0.0099	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-26	0.10	C	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-27	0.028		0.0099	0.00023	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-28	0.93	C20	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-29	0.10	C26	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-30	0.41	C18 B	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-31	0.69		0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-32	0.14	B	0.0099	0.00022	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-33	0.40	C21 B	0.020	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-34	0.018		0.0099	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-35	0.023		0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-36	ND		0.0099	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-37	0.23		0.0099	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-38	ND		0.0099	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-39	0.014		0.0099	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-40	0.73	C	0.030	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-41	0.73	C40	0.030	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-42	0.44		0.0099	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-43	0.049	q C	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-44	1.9	C B	0.030	0.00024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-45	0.18	C	0.020	0.00029	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-46	0.065		0.0099	0.00035	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-47	1.9	C44 B	0.030	0.00024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-48	0.22		0.0099	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-49	1.6	C	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Lab Sample ID: 580-78527-21

Date Collected: 07/01/18 15:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 53.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.14	C	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-51	0.18	C45	0.020	0.00029	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-52	2.8	B	0.0099	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-53	0.14	C50	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-54	0.0022	J q	0.0099	0.000032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-55	0.028		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-56	0.70		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-57	0.012		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-58	0.043		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-59	0.15	C	0.030	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-60	0.16		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-61	3.4	C B	0.040	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-62	0.15	C59	0.030	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-63	0.090		0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-64	0.61		0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-65	1.9	C44 B	0.030	0.00024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-66	2.0		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-67	0.047		0.0099	0.00017	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-68	0.081	B	0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-69	1.6	C49	0.020	0.00022	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-70	3.4	C61 B	0.040	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-71	0.73	C40	0.030	0.00027	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-72	0.12		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-73	0.049	q C43	0.020	0.00026	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-74	3.4	C61 B	0.040	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-75	0.15	C59	0.030	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-76	3.4	C61 B	0.040	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-77	0.14		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-78	ND		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-79	0.053	q	0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-80	0.0050	J q	0.0099	0.00017	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-81	ND		0.0099	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-82	0.52		0.0099	0.00021	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-83	3.9	C	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-84	1.3		0.0099	0.00021	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-85	0.79	C	0.030	0.00015	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-86	3.3	C	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-87	3.3	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-88	0.84	C	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-89	ND		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-90	5.9	C	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-91	0.84	C88	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-92	1.3		0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-93	0.098	C	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-94	ND		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-95	4.3		0.0099	0.00020	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-96	ND		0.0099	0.00015	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-97	3.3	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-98	0.15	C	0.020	0.00017	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Lab Sample ID: 580-78527-21

Date Collected: 07/01/18 15:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 53.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	3.9	C83	0.020	0.00019	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-100	0.098	C93	0.020	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-101	5.9	C90	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-102	0.15	C98	0.020	0.00017	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-103	0.10		0.0099	0.00018	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-104	ND		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-105	1.1		0.0099	0.0030	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-106	ND		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-107	0.54		0.0099	0.0034	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-108	0.12	C B	0.020	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-109	3.3	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-110	5.9	C B	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-111	ND		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-112	ND		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-113	5.9	C90	0.030	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-114	0.058		0.0099	0.0029	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-115	5.9	C110 B	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-116	0.79	C85	0.030	0.00015	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-117	0.79	C85	0.030	0.00015	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-118	4.1		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-119	3.3	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-120	0.079		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-121	ND		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-122	0.056		0.0099	0.0036	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-123	0.039		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-124	0.12	C108 B	0.020	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-125	3.3	C86	0.059	0.00016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-126	0.010	q	0.0099	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-127	ND		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-128	0.85	C	0.020	0.0038	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-129	5.4	C B	0.040	0.0040	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-130	0.43		0.0099	0.0052	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-131	0.074		0.0099	0.0054	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-132	2.0		0.0099	0.0051	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-133	0.19		0.0099	0.0049	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-134	0.34	C	0.020	0.0052	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-135	1.8	C	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-136	0.66		0.0099	0.000081	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-137	0.22		0.0099	0.0045	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-138	5.4	C129 B	0.040	0.0040	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-139	0.14	C	0.020	0.0044	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-140	0.14	C139	0.020	0.0044	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-141	0.71		0.0099	0.0046	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-142	ND		0.0099	0.0049	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-143	0.34	C134	0.020	0.0052	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-144	0.14	q	0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-145	ND		0.0099	0.000077	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-146	1.4		0.0099	0.0044	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-147	4.9	C B	0.020	0.0050	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Lab Sample ID: 580-78527-21

Date Collected: 07/01/18 15:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 53.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.044	q	0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-149	4.9	C147 B	0.020	0.0050	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-150	0.024		0.0099	0.000074	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-151	1.8	C135	0.020	0.00011	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-152	0.0029	J q	0.0099	0.000080	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-153	4.4	C B	0.020	0.0034	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-154	0.17	q	0.0099	0.000088	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-155	ND		0.0099	0.000074	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-156	0.49	C B	0.020	0.0050	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-157	0.49	C156 B	0.020	0.0050	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-158	0.40		0.0099	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-159	ND		0.0099	0.0033	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-160	5.4	C129 B	0.040	0.0040	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-161	ND		0.0099	0.0033	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-162	ND		0.0099	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-163	5.4	C129 B	0.040	0.0040	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-164	0.38		0.0099	0.0035	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-165	ND		0.0099	0.0037	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-166	0.85	C128	0.020	0.0038	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-167	0.16		0.0099	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-168	4.4	C153 B	0.020	0.0034	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-169	ND		0.0099	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-170	0.86		0.0099	0.00014	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-171	0.27	C	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-172	0.15		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-173	0.27	C171	0.020	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-174	0.86		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-175	0.036		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-176	0.13		0.0099	0.000090	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-177	0.62		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-178	0.25		0.0099	0.00013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-179	0.45		0.0099	0.000096	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-180	1.6	C B	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-181	0.013		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-182	0.016		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-183	0.56	C	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-184	ND		0.0099	0.000098	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-185	0.56	C183	0.020	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-186	ND		0.0099	0.000095	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-187	1.2		0.0099	0.00011	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-188	ND		0.0099	0.000084	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-189	0.032		0.0099	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-190	0.14		0.0099	0.000086	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-191	0.035		0.0099	0.000090	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-192	ND		0.0099	0.00010	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-193	1.6	C180 B	0.020	0.00010	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-194	0.36	B	0.0099	0.0016	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-195	0.14		0.0099	0.0017	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-196	0.18		0.0099	0.000091	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Lab Sample ID: 580-78527-21

Date Collected: 07/01/18 15:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 53.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.015		0.0099	0.000070	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-198	0.44	C	0.020	0.000092	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-199	0.44	C198	0.020	0.000092	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-200	0.042		0.0099	0.000062	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-201	0.048		0.0099	0.000063	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-202	0.085		0.0099	0.000071	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-203	0.25	B	0.0099	0.000082	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-204	ND		0.0099	0.000070	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-205	0.016	q	0.0099	0.0013	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-206	0.19		0.0099	0.00076	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-207	0.021		0.0099	0.00053	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-208	0.054		0.0099	0.00053	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1
PCB-209	0.17		0.0099	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 06:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	70		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-3L	72		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-4L	75		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-15L	78		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-19L	93		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-37L	89		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-54L	78		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-77L	85		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-81L	87		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-104L	78		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-105L	93		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-114L	95		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-118L	88		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-123L	90		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-126L	88		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-155L	91		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-156L	84	C	30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-157L	84	C156	30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-167L	88		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-169L	91		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-170L	90		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-188L	96		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-189L	81		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-202L	108		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-205L	76		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-206L	88		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-208L	88		30 - 140	08/28/18 06:14	09/08/18 06:45	1
PCB-209L	90		30 - 140	08/28/18 06:14	09/08/18 06:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125	08/28/18 06:14	09/08/18 06:45	1
PCB-111L	91		40 - 125	08/28/18 06:14	09/08/18 06:45	1
PCB-178L	103		40 - 125	08/28/18 06:14	09/08/18 06:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B459

Lab Sample ID: 580-78527-22

Date Collected: 07/01/18 12:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.027	J q	0.049	0.0013	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-2	ND		0.049	0.0014	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-3	0.030	J	0.049	0.0015	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-4	0.73		0.098	0.020	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-5	ND		0.049	0.015	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-6	0.43		0.049	0.013	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-7	0.021	J q	0.049	0.014	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-8	0.61		0.098	0.012	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-9	0.029	J q	0.049	0.014	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-10	ND		0.049	0.015	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-11	0.047	J q B	0.098	0.013	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-12	0.081	J q C	0.098	0.013	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-13	0.081	J q C12	0.098	0.013	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-14	ND		0.049	0.011	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-15	0.68		0.049	0.014	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-16	0.21		0.049	0.0027	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-17	1.8		0.049	0.0024	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-18	1.6	C B	0.098	0.0021	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-19	0.93		0.049	0.0030	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-20	2.8	C	0.098	0.0079	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-21	0.69	C B	0.098	0.0077	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-22	0.22		0.049	0.0081	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-23	ND		0.049	0.0080	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-24	ND		0.049	0.0020	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-25	1.2		0.049	0.0073	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-26	0.92	C	0.098	0.0078	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-27	0.30		0.049	0.0018	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-28	2.8	C20	0.098	0.0079	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-29	0.92	C26	0.098	0.0078	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-30	1.6	C18 B	0.098	0.0021	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-31	1.7		0.098	0.0077	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-32	2.7	B	0.049	0.0017	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-33	0.69	C21 B	0.098	0.0077	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-34	ND		0.049	0.0083	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-35	0.021	J q	0.049	0.0081	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-36	ND		0.049	0.0078	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-37	0.19		0.049	0.0081	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-38	ND		0.049	0.0084	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-39	ND		0.049	0.0075	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-40	10	C	0.15	0.0033	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-41	10	C40	0.15	0.0033	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-42	1.0		0.049	0.0033	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-43	1.9	C	0.098	0.0031	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-44	34	C B	0.15	0.0029	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-45	13	C	0.098	0.0035	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-46	2.1		0.049	0.0042	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-47	34	C44 B	0.15	0.0029	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-48	0.53		0.049	0.0033	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5
PCB-49	36	C	0.098	0.0027	ng/g	✱	08/28/18 06:14	09/08/18 07:46	5

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B459

Lab Sample ID: 580-78527-22

Date Collected: 07/01/18 12:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	25	C	0.098	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-51	13	C45	0.098	0.0035	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-52	26	B	0.049	0.0033	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-53	25	C50	0.098	0.0032	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-54	1.3		0.049	0.0010	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-55	0.025	J q	0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-56	0.33		0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-57	0.030	J q	0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-58	0.13		0.049	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-59	0.81	C	0.15	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-60	0.069	q	0.049	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-61	2.7	C B	0.20	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-62	0.81	C59	0.15	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-63	0.19		0.049	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-64	0.54		0.049	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-65	34	C44 B	0.15	0.0029	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-66	2.0		0.049	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-67	ND		0.049	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-68	0.62	B	0.049	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-69	36	C49	0.098	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-70	2.7	C61 B	0.20	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-71	10	C40	0.15	0.0033	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-72	0.43		0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-73	1.9	C43	0.098	0.0031	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-74	2.7	C61 B	0.20	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-75	0.81	C59	0.15	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-76	2.7	C61 B	0.20	0.0023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-77	0.089		0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-78	ND		0.049	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-79	0.10		0.049	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-80	0.020	J	0.049	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-81	ND		0.049	0.0022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-82	ND		0.049	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-83	18	C	0.098	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-84	2.9		0.049	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-85	0.37	q C	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-86	8.5	C	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-87	8.5	C86	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-88	5.8	C	0.098	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-89	ND		0.049	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-90	34	C	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-91	5.8	C88	0.098	0.0025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-92	14		0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-93	4.7	C	0.098	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-94	2.0		0.049	0.0028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-95	36		0.049	0.0027	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-96	1.6		0.049	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-97	8.5	C86	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-98	3.5	C	0.098	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B459

Lab Sample ID: 580-78527-22

Date Collected: 07/01/18 12:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	18	C83	0.098	0.0026	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-100	4.7	C93	0.098	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-101	34	C90	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-102	3.5	C98	0.098	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-103	7.9		0.049	0.0024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-104	0.27		0.049	0.0019	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-105	0.66		0.049	0.0098	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-106	ND		0.049	0.010	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-107	1.9		0.049	0.011	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-108	0.079	J C B	0.098	0.011	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-109	8.5	C86	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-110	11	C B	0.098	0.0018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-111	0.27		0.049	0.0017	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-112	ND		0.049	0.0018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-113	34	C90	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-114	0.12	q	0.049	0.0095	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-115	11	C110 B	0.098	0.0018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-116	0.37	q C85	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-117	0.37	q C85	0.15	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-118	4.1		0.049	0.010	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-119	8.5	C86	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-120	0.69		0.049	0.0017	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-121	0.28		0.049	0.0018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-122	ND		0.049	0.012	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-123	0.043	J q	0.049	0.010	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-124	0.079	J C108 B	0.098	0.011	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-125	8.5	C86	0.29	0.0021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-126	0.19	q	0.049	0.012	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-127	ND		0.049	0.010	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-128	1.4	C	0.098	0.027	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-129	26	C B	0.20	0.028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-130	2.1		0.049	0.037	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-131	ND		0.049	0.039	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-132	11		0.049	0.036	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-133	3.0		0.049	0.035	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-134	2.9	C	0.098	0.037	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-135	31	C	0.098	0.0020	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-136	10		0.049	0.0014	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-137	0.42		0.049	0.032	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-138	26	C129 B	0.20	0.028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-139	1.0	C	0.098	0.031	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-140	1.0	C139	0.098	0.031	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-141	4.0		0.049	0.033	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-142	ND		0.049	0.035	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-143	2.9	C134	0.098	0.037	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-144	1.1		0.049	0.0018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-145	ND		0.049	0.0014	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-146	18		0.049	0.031	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-147	42	C B	0.098	0.036	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B459

Lab Sample ID: 580-78527-22

Date Collected: 07/01/18 12:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	1.0		0.049	0.0019	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-149	42	C147 B	0.098	0.036	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-150	0.90		0.049	0.0013	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-151	31	C135	0.098	0.0020	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-152	0.13		0.049	0.0014	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-153	32	C B	0.098	0.025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-154	4.5	q	0.049	0.0015	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-155	0.053		0.049	0.0013	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-156	1.0	C B	0.098	0.032	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-157	1.0	C156 B	0.098	0.032	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-158	1.7		0.049	0.022	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-159	0.24		0.049	0.024	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-160	26	C129 B	0.20	0.028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-161	ND		0.049	0.023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-162	0.028	J q	0.049	0.023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-163	26	C129 B	0.20	0.028	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-164	1.8		0.049	0.025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-165	0.39		0.049	0.027	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-166	1.4	C128	0.098	0.027	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-167	0.44		0.049	0.017	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-168	32	C153 B	0.098	0.025	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-169	0.095		0.049	0.018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-170	11		0.049	0.0077	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-171	3.4	C	0.098	0.0070	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-172	2.0		0.049	0.0070	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-173	3.4	C171	0.098	0.0070	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-174	10		0.049	0.0066	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-175	0.56		0.049	0.0064	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-176	1.8		0.049	0.0048	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-177	10		0.049	0.0067	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-178	5.1		0.049	0.0069	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-179	8.7		0.049	0.0051	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-180	23	C B	0.098	0.0053	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-181	ND		0.049	0.0063	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-182	0.39		0.049	0.0061	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-183	7.8	C	0.098	0.0062	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-184	ND		0.049	0.0052	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-185	7.8	C183	0.098	0.0062	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-186	ND		0.049	0.0051	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-187	20		0.049	0.0059	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-188	ND		0.049	0.0044	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-189	0.43		0.049	0.0092	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-190	2.1		0.049	0.0046	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-191	0.47		0.049	0.0048	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-192	ND		0.049	0.0053	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-193	23	C180 B	0.098	0.0053	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-194	6.6	B	0.049	0.021	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-195	2.9		0.049	0.023	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-196	3.1		0.049	0.0086	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B459

Lab Sample ID: 580-78527-22

Date Collected: 07/01/18 12:20

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.28		0.049	0.0066	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-198	5.9	C	0.098	0.0087	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-199	5.9	C198	0.098	0.0087	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-200	0.63		0.049	0.0058	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-201	0.75		0.049	0.0060	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-202	1.1		0.049	0.0067	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-203	3.4	B	0.049	0.0078	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-204	ND		0.049	0.0066	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-205	0.37		0.049	0.018	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-206	1.2		0.049	0.0054	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-207	0.17		0.049	0.0039	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-208	0.21		0.049	0.0040	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5
PCB-209	0.14	q	0.049	0.00012	ng/g	☼	08/28/18 06:14	09/08/18 07:46	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	68		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-3L	69		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-4L	79		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-15L	84		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-19L	90		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-37L	90		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-54L	88		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-77L	81		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-81L	85		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-104L	84		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-105L	94		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-114L	96		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-118L	90		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-123L	97		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-126L	84		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-155L	95		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-156L	86	C	30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-157L	86	C156	30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-167L	91		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-169L	92		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-170L	85		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-188L	93		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-189L	83		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-202L	106		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-205L	82		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-206L	93		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-208L	88		30 - 140	08/28/18 06:14	09/08/18 07:46	5
PCB-209L	89		30 - 140	08/28/18 06:14	09/08/18 07:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125	08/28/18 06:14	09/08/18 07:46	5
PCB-111L	93		40 - 125	08/28/18 06:14	09/08/18 07:46	5
PCB-178L	102		40 - 125	08/28/18 06:14	09/08/18 07:46	5

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B460

Lab Sample ID: 580-78527-23

Date Collected: 07/01/18 11:15

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 43.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.011	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-2	0.0020	J B	0.011	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-3	0.0012	J q	0.011	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-4	ND		0.022	0.0066	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-5	ND		0.011	0.0057	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-6	ND		0.011	0.0050	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-7	ND		0.011	0.0051	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-8	0.0046	J q	0.022	0.0046	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-9	ND		0.011	0.0052	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-10	ND		0.011	0.0056	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-11	0.030	q B	0.022	0.0049	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-12	ND	C	0.022	0.0050	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-13	ND	C12	0.022	0.0050	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-14	ND		0.011	0.0043	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-15	0.0058	J q	0.011	0.0055	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-16	0.0027	J q	0.011	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-17	0.0079	J	0.011	0.00027	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-18	0.011	J C B	0.022	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-19	0.0031	J	0.011	0.00033	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-20	0.026	C	0.022	0.00085	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-21	0.0077	J C B	0.022	0.00083	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-22	0.0062	J	0.011	0.00086	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-23	ND		0.011	0.00086	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-24	ND		0.011	0.00023	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-25	0.0027	J q	0.011	0.00078	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-26	0.0055	J C	0.022	0.00083	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-27	0.00064	J q	0.011	0.00020	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-28	0.026	C20	0.022	0.00085	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-29	0.0055	J C26	0.022	0.00083	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-30	0.011	J C18 B	0.022	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-31	0.020	J	0.022	0.00082	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-32	0.0028	J q B	0.011	0.00019	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-33	0.0077	J C21 B	0.022	0.00083	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-34	ND		0.011	0.00089	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-35	ND		0.011	0.00087	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-36	ND		0.011	0.00083	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-37	0.0067	J	0.011	0.00086	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-38	ND		0.011	0.00090	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-39	ND		0.011	0.00080	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-40	0.017	J q C	0.034	0.0016	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-41	0.017	J q C40	0.034	0.0016	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-42	0.0089	J	0.011	0.0016	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-43	0.0042	J q C	0.022	0.0015	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-44	0.050	C B	0.034	0.0014	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-45	0.0084	J C	0.022	0.0017	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-46	ND		0.011	0.0021	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-47	0.050	C44 B	0.034	0.0014	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-48	0.0073	J	0.011	0.0016	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1
PCB-49	0.038	C	0.022	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 16:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B460

Lab Sample ID: 580-78527-23

Date Collected: 07/01/18 11:15

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 43.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0077	J C	0.022	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-51	0.0084	J C45	0.022	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-52	0.069	B	0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-53	0.0077	J C50	0.022	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-54	ND		0.011	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-55	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-56	0.014	q	0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-57	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-58	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-59	ND	C	0.034	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-60	0.0078	J	0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-61	0.076	C B	0.045	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-62	ND	C59	0.034	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-63	ND		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-64	0.019		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-65	0.050	C44 B	0.034	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-66	0.045		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-67	ND		0.011	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-68	ND		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-69	0.038	C49	0.022	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-70	0.076	C61 B	0.045	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-71	0.017	J q C40	0.034	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-72	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-73	0.0042	J q C43	0.022	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-74	0.076	C61 B	0.045	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-75	ND	C59	0.034	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-76	0.076	C61 B	0.045	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-77	0.0048	J q	0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-78	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-79	ND		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-80	ND		0.011	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-81	ND		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-82	0.013		0.011	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-83	0.066	q C	0.022	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-84	0.022		0.011	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-85	0.023	J C	0.034	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-86	0.064	J C	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-87	0.064	J C86	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-88	0.016	J q C	0.022	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-89	ND		0.011	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-90	0.10	C	0.034	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-91	0.016	J q C88	0.022	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-92	0.024		0.011	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-93	0.016	J C	0.022	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-94	ND		0.011	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-95	0.082		0.011	0.00086	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-96	ND		0.011	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-97	0.064	J C86	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-98	0.0030	J q C	0.022	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B460

Lab Sample ID: 580-78527-23

Date Collected: 07/01/18 11:15

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 43.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.066	q C83	0.022	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-100	0.016	J C93	0.022	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-101	0.10	C90	0.034	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-102	0.0030	J q C98	0.022	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-103	ND		0.011	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-104	ND		0.011	0.00060	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-105	0.043		0.011	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-106	ND		0.011	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-107	0.0080	J	0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-108	0.0036	J q C B	0.022	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-109	0.064	J C86	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-110	0.13	C B	0.022	0.00057	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-111	ND		0.011	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-112	ND		0.011	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-113	0.10	C90	0.034	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-114	0.0026	J	0.011	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-115	0.13	C110 B	0.022	0.00057	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-116	0.023	J C85	0.034	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-117	0.023	J C85	0.034	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-118	0.10		0.011	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-119	0.064	J C86	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-120	ND		0.011	0.00056	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-121	ND		0.011	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-122	ND		0.011	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-123	ND		0.011	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-124	0.0036	J q C108 E	0.022	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-125	0.064	J C86	0.067	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-126	ND		0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-127	ND		0.011	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-128	0.029	C	0.022	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-129	0.18	C B	0.045	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-130	0.013		0.011	0.0038	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-131	ND		0.011	0.0040	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-132	0.044		0.011	0.0038	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-133	ND		0.011	0.0036	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-134	0.0067	J q C	0.022	0.0038	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-135	0.044	C	0.022	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-136	0.015		0.011	0.00063	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-137	0.0057	J q	0.011	0.0033	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-138	0.18	C129 B	0.045	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-139	ND	C	0.022	0.0032	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-140	ND	C139	0.022	0.0032	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-141	0.027		0.011	0.0034	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-142	ND		0.011	0.0036	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-143	0.0067	J q C134	0.022	0.0038	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-144	0.0053	J q	0.011	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-145	ND		0.011	0.00060	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-146	0.028		0.011	0.0032	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-147	0.13	C B	0.022	0.0037	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B460

Lab Sample ID: 580-78527-23

Date Collected: 07/01/18 11:15

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 43.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.011	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-149	0.13	C147 B	0.022	0.0037	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-150	ND		0.011	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-151	0.044	C135	0.022	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-152	ND		0.011	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-153	0.14	C B	0.022	0.0025	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-154	0.0034	J	0.011	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-155	ND		0.011	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-156	0.018	J C B	0.022	0.0034	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-157	0.018	J C156 B	0.022	0.0034	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-158	0.015	q	0.011	0.0023	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-159	ND		0.011	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-160	0.18	C129 B	0.045	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-161	ND		0.011	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-162	ND		0.011	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-163	0.18	C129 B	0.045	0.0029	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-164	0.011	q	0.011	0.0026	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-165	ND		0.011	0.0027	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-166	0.029	C128	0.022	0.0028	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-167	0.0068	J	0.011	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-168	0.14	C153 B	0.022	0.0025	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-169	ND		0.011	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-170	0.045		0.011	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-171	0.013	J C	0.022	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-172	0.0093	J	0.011	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-173	0.013	J C171	0.022	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-174	0.039		0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-175	ND		0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-176	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-177	0.026	q	0.011	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-178	0.011	q	0.011	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-179	0.013	q	0.011	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-180	0.094	C B	0.022	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-181	ND		0.011	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-182	ND		0.011	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-183	0.027	C	0.022	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-184	ND		0.011	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-185	0.027	C183	0.022	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-186	ND		0.011	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-187	0.058		0.011	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-188	ND		0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-189	ND		0.011	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-190	0.0077	J q	0.011	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-191	ND		0.011	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-192	ND		0.011	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-193	0.094	C180 B	0.022	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-194	0.029	q B	0.011	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-195	0.0093	J q	0.011	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-196	0.0093	J q	0.011	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B460

Lab Sample ID: 580-78527-23

Date Collected: 07/01/18 11:15

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 43.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.011	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-198	0.032	C	0.022	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-199	0.032	C198	0.022	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-200	0.0037	J	0.011	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-201	0.0020	J q	0.011	0.00064	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-202	0.0068	J q	0.011	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-203	0.017	B	0.011	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-204	ND		0.011	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-205	ND		0.011	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-206	0.019	q	0.011	0.0030	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-207	ND		0.011	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-208	0.0078	J	0.011	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1
PCB-209	0.033		0.011	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 16:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	69		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-3L	71		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-4L	76		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-15L	75		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-19L	84		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-37L	83		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-54L	81		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-77L	80		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-81L	78		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-104L	81		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-105L	86		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-114L	88		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-118L	85		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-123L	84		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-126L	82		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-155L	85		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-156L	83	C	30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-157L	83	C156	30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-167L	87		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-169L	84		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-170L	84		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-188L	89		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-189L	80		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-202L	100		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-205L	72		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-206L	82		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-208L	86		30 - 140	08/28/18 06:14	09/07/18 16:29	1
PCB-209L	78		30 - 140	08/28/18 06:14	09/07/18 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125	08/28/18 06:14	09/07/18 16:29	1
PCB-111L	91		40 - 125	08/28/18 06:14	09/07/18 16:29	1
PCB-178L	97		40 - 125	08/28/18 06:14	09/07/18 16:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461

Date Collected: 07/01/18 10:00

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-24

Matrix: Solid

Percent Solids: 50.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00087	J q	0.0096	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-2	0.0021	J q B	0.0096	0.00012	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-3	0.0015	J	0.0096	0.00013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-4	ND		0.019	0.0048	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-5	ND		0.0096	0.0039	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-6	ND		0.0096	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-7	ND		0.0096	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-8	0.0054	J q	0.019	0.0032	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-9	ND		0.0096	0.0036	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-10	ND		0.0096	0.0038	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-11	0.031	B	0.019	0.0034	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-12	ND	C	0.019	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-13	ND	C12	0.019	0.0035	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-14	ND		0.0096	0.0030	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-15	0.0066	J q	0.0096	0.0037	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-16	0.0024	J q	0.0096	0.00022	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-17	0.0022	J q	0.0096	0.00020	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-18	0.0065	J q C B	0.019	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-19	ND		0.0096	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-20	0.021	C	0.019	0.00057	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-21	0.0057	J q C B	0.019	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-22	0.0051	J	0.0096	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-23	ND		0.0096	0.00057	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-24	ND		0.0096	0.00017	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-25	0.0010	J q	0.0096	0.00052	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-26	0.0035	J C	0.019	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-27	0.0014	J q	0.0096	0.00015	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-28	0.021	C20	0.019	0.00057	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-29	0.0035	J C26	0.019	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-30	0.0065	J q C18 B	0.019	0.00018	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-31	0.016	J	0.019	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-32	0.0017	J q B	0.0096	0.00014	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-33	0.0057	J q C21 B	0.019	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-34	ND		0.0096	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-35	ND		0.0096	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-36	ND		0.0096	0.00056	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-37	0.0057	J q	0.0096	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-38	ND		0.0096	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-39	ND		0.0096	0.00054	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-40	0.0096	J q C	0.029	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-41	0.0096	J q C40	0.029	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-42	0.0062	J	0.0096	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-43	ND	C	0.019	0.0012	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-44	0.031	C B	0.029	0.0011	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-45	ND	C	0.019	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-46	ND		0.0096	0.0016	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-47	0.031	C44 B	0.029	0.0011	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-48	0.0042	J q	0.0096	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1
PCB-49	0.020	C	0.019	0.0010	ng/g	✱	08/28/18 06:14	09/07/18 17:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461

Lab Sample ID: 580-78527-24

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.019	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-51	ND	C45	0.019	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-52	0.047	B	0.0096	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-53	ND	C50	0.019	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-54	ND		0.0096	0.000024	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-55	ND		0.0096	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-56	0.0089	J q	0.0096	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-57	ND		0.0096	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-58	ND		0.0096	0.00095	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-59	ND	C	0.029	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-60	0.0049	J q	0.0096	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-61	0.057	C B	0.038	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-62	ND	C59	0.029	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-63	ND		0.0096	0.00085	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-64	0.011		0.0096	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-65	0.031	C44 B	0.029	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-66	0.034		0.0096	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-67	ND		0.0096	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-68	ND		0.0096	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-69	0.020	C49	0.019	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-70	0.057	C61 B	0.038	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-71	0.0096	J q C40	0.029	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-72	ND		0.0096	0.00091	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-73	ND	C43	0.019	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-74	0.057	C61 B	0.038	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-75	ND	C59	0.029	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-76	0.057	C61 B	0.038	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-77	ND		0.0096	0.00089	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-78	ND		0.0096	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-79	ND		0.0096	0.00082	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-80	ND		0.0096	0.00080	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-81	ND		0.0096	0.00086	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-82	0.0096	q	0.0096	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-83	0.069	C	0.019	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-84	0.018		0.0096	0.00023	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-85	0.016	J q C	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-86	0.064	C	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-87	0.064	C86	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-88	0.011	J q C	0.019	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-89	ND		0.0096	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-90	0.090	C	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-91	0.011	J q C88	0.019	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-92	0.016		0.0096	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-93	0.011	J C	0.019	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-94	ND		0.0096	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-95	0.072		0.0096	0.00022	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-96	ND		0.0096	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-97	0.064	C86	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-98	ND	C	0.019	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461

Lab Sample ID: 580-78527-24

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.069	C83	0.019	0.00021	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-100	0.011	J C93	0.019	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-101	0.090	C90	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-102	ND	C98	0.019	0.00019	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-103	ND		0.0096	0.00020	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-104	ND		0.0096	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-105	0.039		0.0096	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-106	ND		0.0096	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-107	0.011	q	0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-108	0.0030	J q C B	0.019	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-109	0.064	C86	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-110	0.12	q C B	0.019	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-111	ND		0.0096	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-112	ND		0.0096	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-113	0.090	C90	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-114	ND		0.0096	0.00090	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-115	0.12	q C110 B	0.019	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-116	0.016	J q C85	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-117	0.016	J q C85	0.029	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-118	0.10		0.0096	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-119	0.064	C86	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-120	0.00082	J q	0.0096	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-121	ND		0.0096	0.00015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-122	ND		0.0096	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-123	0.0037	J q	0.0096	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-124	0.0030	J q C108 E	0.019	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-125	0.064	C86	0.057	0.00017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-126	ND		0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-127	ND		0.0096	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-128	0.029	C	0.019	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-129	0.18	C B	0.038	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-130	0.0073	J q	0.0096	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-131	ND		0.0096	0.0019	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-132	0.045		0.0096	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-133	ND		0.0096	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-134	0.0064	J q C	0.019	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-135	0.044	C	0.019	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-136	0.012		0.0096	0.000089	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-137	0.0082	J q	0.0096	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-138	0.18	C129 B	0.038	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-139	ND	C	0.019	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-140	ND	C139	0.019	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-141	0.024		0.0096	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-142	ND		0.0096	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-143	0.0064	J q C134	0.019	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-144	0.0041	J q	0.0096	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-145	ND		0.0096	0.000085	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-146	0.023		0.0096	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-147	0.12	C B	0.019	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461

Lab Sample ID: 580-78527-24

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0096	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-149	0.12	C147 B	0.019	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-150	ND		0.0096	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-151	0.044	C135	0.019	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-152	ND		0.0096	0.000087	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-153	0.13	C B	0.019	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-154	0.0010	J q	0.0096	0.000096	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-155	ND		0.0096	0.000081	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-156	0.017	J C B	0.019	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-157	0.017	J C156 B	0.019	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-158	0.014	q	0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-159	ND		0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-160	0.18	C129 B	0.038	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-161	ND		0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-162	ND		0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-163	0.18	C129 B	0.038	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-164	0.0098	q	0.0096	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-165	ND		0.0096	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-166	0.029	C128	0.019	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-167	0.0058	J	0.0096	0.00083	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-168	0.13	C153 B	0.019	0.0012	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-169	ND		0.0096	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-170	0.042		0.0096	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-171	0.0089	J q C	0.019	0.00056	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-172	0.0071	J q	0.0096	0.00056	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-173	0.0089	J q C171	0.019	0.00056	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-174	0.036		0.0096	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-175	ND		0.0096	0.00050	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-176	0.0027	J q	0.0096	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-177	0.018	q	0.0096	0.00054	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-178	0.0085	J q	0.0096	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-179	0.015	q	0.0096	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-180	0.078	C B	0.019	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-181	ND		0.0096	0.00050	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-182	ND		0.0096	0.00048	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-183	0.020	q C	0.019	0.00049	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-184	ND		0.0096	0.00041	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-185	0.020	q C183	0.019	0.00049	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-186	ND		0.0096	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-187	0.051		0.0096	0.00047	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-188	ND		0.0096	0.00036	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-189	ND		0.0096	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-190	0.011		0.0096	0.00036	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-191	0.0023	J	0.0096	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-192	ND		0.0096	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-193	0.078	C180 B	0.019	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-194	0.020	B	0.0096	0.0013	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-195	0.0073	J q	0.0096	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-196	0.0090	J	0.0096	0.00041	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461

Lab Sample ID: 580-78527-24

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0096	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-198	0.026	q C	0.019	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-199	0.026	q C198	0.019	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-200	0.0021	J q	0.0096	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-201	0.0032	J	0.0096	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-202	0.0059	J	0.0096	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-203	0.013	q B	0.0096	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-204	ND		0.0096	0.00032	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-205	ND		0.0096	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-206	0.017		0.0096	0.00088	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-207	ND		0.0096	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-208	0.0047	J q	0.0096	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1
PCB-209	0.023		0.0096	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 17:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	68		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-3L	61	q	30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-4L	73		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-15L	72		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-19L	89		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-37L	83		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-54L	77		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-77L	81		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-81L	80		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-104L	77		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-105L	87		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-114L	89		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-118L	88		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-123L	89		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-126L	84		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-155L	79		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-156L	83	C	30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-157L	83	C156	30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-167L	88		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-169L	88		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-170L	81		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-188L	87		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-189L	81		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-202L	95		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-205L	74		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-206L	79		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-208L	83		30 - 140	08/28/18 06:14	09/07/18 17:31	1
PCB-209L	74		30 - 140	08/28/18 06:14	09/07/18 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125	08/28/18 06:14	09/07/18 17:31	1
PCB-111L	86		40 - 125	08/28/18 06:14	09/07/18 17:31	1
PCB-178L	97		40 - 125	08/28/18 06:14	09/07/18 17:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461-D

Lab Sample ID: 580-78527-25

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.000092	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-2	0.0028	J q B	0.0098	0.00010	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-3	ND		0.0098	0.00011	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-4	ND		0.020	0.0060	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-5	ND		0.0098	0.0051	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-6	ND		0.0098	0.0045	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-7	ND		0.0098	0.0046	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-8	ND		0.020	0.0042	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-9	ND		0.0098	0.0047	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-10	ND		0.0098	0.0050	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-11	0.029	B	0.020	0.0044	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-12	ND	C	0.020	0.0046	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-13	ND	C12	0.020	0.0046	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-14	ND		0.0098	0.0039	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-15	ND		0.0098	0.0050	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-16	ND		0.0098	0.00038	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-17	0.0046	J	0.0098	0.00034	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-18	0.0085	J C B	0.020	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-19	ND		0.0098	0.00042	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-20	0.022	C	0.020	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-21	0.0054	J q C B	0.020	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-22	0.0051	J	0.0098	0.00061	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-23	ND		0.0098	0.00061	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-24	ND		0.0098	0.00029	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-25	0.0021	J	0.0098	0.00055	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-26	0.0033	J q C	0.020	0.00059	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-27	ND		0.0098	0.00025	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-28	0.022	C20	0.020	0.00060	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-29	0.0033	J q C26	0.020	0.00059	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-30	0.0085	J C18 B	0.020	0.00030	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-31	0.013	J q	0.020	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-32	0.0028	J B	0.0098	0.00024	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-33	0.0054	J q C21 B	0.020	0.00058	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-34	ND		0.0098	0.00063	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-35	ND		0.0098	0.00061	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-36	ND		0.0098	0.00059	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-37	0.0049	J q	0.0098	0.00061	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-38	ND		0.0098	0.00064	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-39	ND		0.0098	0.00057	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-40	0.0097	J q C	0.029	0.00099	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-41	0.0097	J q C40	0.029	0.00099	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-42	0.0062	J q	0.0098	0.00099	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-43	ND	C	0.020	0.00093	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-44	0.030	C B	0.029	0.00087	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-45	0.0039	J C	0.020	0.0010	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-46	ND		0.0098	0.0013	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-47	0.030	C44 B	0.029	0.00087	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-48	0.0025	J q	0.0098	0.00099	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1
PCB-49	0.022	C	0.020	0.00081	ng/g	✱	08/28/18 06:14	09/07/18 18:32	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461-D

Lab Sample ID: 580-78527-25

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0030	J q C	0.020	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-51	0.0039	J C45	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-52	0.040	B	0.0098	0.00098	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-53	0.0030	J q C50	0.020	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-54	ND		0.0098	0.000025	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-55	ND		0.0098	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-56	0.013		0.0098	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-57	ND		0.0098	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-58	ND		0.0098	0.00074	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-59	ND C		0.029	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-60	0.0037	J q	0.0098	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-61	0.050	q C B	0.039	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-62	ND C59		0.029	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-63	ND		0.0098	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-64	0.0088	J q	0.0098	0.00066	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-65	0.030	C44 B	0.029	0.00087	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-66	0.033		0.0098	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-67	ND		0.0098	0.00063	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-68	0.0015	J B	0.0098	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-69	0.022	C49	0.020	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-70	0.050	q C61 B	0.039	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-71	0.0097	J q C40	0.029	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-72	ND		0.0098	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-73	ND C43		0.020	0.00093	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-74	0.050	q C61 B	0.039	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-75	ND C59		0.029	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-76	0.050	q C61 B	0.039	0.00069	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-77	0.0043	J	0.0098	0.00070	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-78	ND		0.0098	0.00074	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-79	0.00077	J q	0.0098	0.00064	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-80	ND		0.0098	0.00063	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-81	ND		0.0098	0.00067	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-82	0.0085	J q	0.0098	0.00044	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-83	0.063	C	0.020	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-84	0.017	q	0.0098	0.00044	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-85	0.022	J q C	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-86	0.059	C	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-87	0.059	C86	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-88	0.014	J C	0.020	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-89	ND		0.0098	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-90	0.098	C	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-91	0.014	J C88	0.020	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-92	0.017		0.0098	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-93	ND C		0.020	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-94	ND		0.0098	0.00043	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-95	0.076		0.0098	0.00042	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-96	ND		0.0098	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-97	0.059	C86	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-98	ND C		0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461-D

Lab Sample ID: 580-78527-25

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.063	C83	0.020	0.00040	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-100	ND	C93	0.020	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-101	0.098	C90	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-102	ND	C98	0.020	0.00037	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-103	ND		0.0098	0.00038	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-104	ND		0.0098	0.00029	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-105	0.038		0.0098	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-106	ND		0.0098	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-107	0.0084	J	0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-108	0.0042	J C B	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-109	0.059	C86	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-110	0.12	C B	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-111	ND		0.0098	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-112	ND		0.0098	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-113	0.098	C90	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-114	0.0024	J q	0.0098	0.00094	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-115	0.12	C110 B	0.020	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-116	0.022	J q C85	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-117	0.022	J q C85	0.029	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-118	0.089		0.0098	0.00092	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-119	0.059	C86	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-120	0.0016	J q	0.0098	0.00027	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-121	ND		0.0098	0.00028	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-122	0.0016	J q	0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-123	ND		0.0098	0.00096	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-124	0.0042	J C108 B	0.020	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-125	0.059	C86	0.059	0.00033	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-126	ND		0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-127	ND		0.0098	0.00099	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-128	0.023	C	0.020	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-129	0.16	C B	0.039	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-130	0.013		0.0098	0.0024	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-131	ND		0.0098	0.0025	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-132	0.035		0.0098	0.0023	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-133	ND		0.0098	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-134	0.0055	J q C	0.020	0.0023	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-135	0.038	C	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-136	0.011	q	0.0098	0.000055	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-137	0.0083	J	0.0098	0.0020	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-138	0.16	C129 B	0.039	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-139	ND	C	0.020	0.0020	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-140	ND	C139	0.020	0.0020	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-141	0.025		0.0098	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-142	ND		0.0098	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-143	0.0055	J q C134	0.020	0.0023	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-144	0.0037	J	0.0098	0.000069	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-145	ND		0.0098	0.000052	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-146	0.026		0.0098	0.0020	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-147	0.099	C B	0.020	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461-D

Lab Sample ID: 580-78527-25

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000074	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-149	0.099	C147 B	0.020	0.0022	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-150	ND		0.0098	0.000050	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-151	0.038	C135	0.020	0.000076	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-152	ND		0.0098	0.000054	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-153	0.13	C B	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-154	0.0020	J	0.0098	0.000059	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-155	ND		0.0098	0.000050	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-156	0.015	J q C B	0.020	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-157	0.015	J q C156 E	0.020	0.0021	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-158	0.014		0.0098	0.0014	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-159	ND		0.0098	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-160	0.16	C129 B	0.039	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-161	ND		0.0098	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-162	ND		0.0098	0.0015	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-163	0.16	C129 B	0.039	0.0018	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-164	0.011	q	0.0098	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-165	ND		0.0098	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-166	0.023	C128	0.020	0.0017	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-167	0.0064	J	0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-168	0.13	C153 B	0.020	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-169	ND		0.0098	0.0011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-170	0.038		0.0098	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-171	0.010	J C	0.020	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-172	0.0067	J	0.0098	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-173	0.010	J C171	0.020	0.00081	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-174	0.031		0.0098	0.00076	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-175	ND		0.0098	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-176	0.0028	J	0.0098	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-177	0.020		0.0098	0.00078	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-178	0.010		0.0098	0.00079	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-179	0.012		0.0098	0.00059	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-180	0.078	q C B	0.020	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-181	ND		0.0098	0.00073	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-182	ND		0.0098	0.00071	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-183	0.023	q C	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-184	ND		0.0098	0.00060	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-185	0.023	q C183	0.020	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-186	ND		0.0098	0.00058	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-187	0.053		0.0098	0.00068	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-188	ND		0.0098	0.00052	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-189	0.0018	J q	0.0098	0.00084	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-190	0.0068	J q	0.0098	0.00053	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-191	0.0017	J q	0.0098	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-192	ND		0.0098	0.00062	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-193	0.078	q C180 B	0.020	0.00061	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-194	0.024	B	0.0098	0.00065	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-195	0.0077	J q	0.0098	0.00072	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-196	0.0064	J q	0.0098	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B461-D

Lab Sample ID: 580-78527-25

Date Collected: 07/01/18 10:00

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 50.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-198	0.036	q C	0.020	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-199	0.036	q C198	0.020	0.00016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-200	0.0019	J	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-201	0.0013	J q	0.0098	0.00011	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-202	0.0073	J q	0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-203	0.018	B	0.0098	0.00014	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-204	ND		0.0098	0.00012	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-205	ND		0.0098	0.00055	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-206	0.022		0.0098	0.0016	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-207	ND		0.0098	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-208	0.0064	J q	0.0098	0.0010	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
PCB-209	0.029	q	0.0098	0.00034	ng/g	☼	08/28/18 06:14	09/07/18 18:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	74		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-3L	73		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-4L	79		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-15L	75		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-19L	83		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-37L	83		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-54L	79		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-77L	80		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-81L	80		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-104L	75		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-105L	87		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-114L	87		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-118L	87		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-123L	85		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-126L	84		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-155L	81		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-156L	83	C	30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-157L	83	C156	30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-167L	87		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-169L	89		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-170L	83		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-188L	87		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-189L	82		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-202L	100		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-205L	72		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-206L	79		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-208L	86		30 - 140				08/28/18 06:14	09/07/18 18:32	1
PCB-209L	75		30 - 140				08/28/18 06:14	09/07/18 18:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	92		40 - 125				08/28/18 06:14	09/07/18 18:32	1
PCB-111L	90		40 - 125				08/28/18 06:14	09/07/18 18:32	1
PCB-178L	94		40 - 125				08/28/18 06:14	09/07/18 18:32	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23078

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00028	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-2	ND		0.010	0.00033	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-3	0.00108	J	0.010	0.00036	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-4	ND		0.020	0.011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-5	ND		0.010	0.0098	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-6	ND		0.010	0.0086	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-7	ND		0.010	0.0088	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-8	ND		0.020	0.0080	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-9	ND		0.010	0.0090	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-10	ND		0.010	0.0096	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-11	0.0188	J q	0.020	0.0084	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-12	ND	C	0.020	0.0087	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-13	ND	C12	0.020	0.0087	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-14	ND		0.010	0.0074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-15	ND		0.010	0.0098	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-16	ND		0.010	0.00058	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-17	ND		0.010	0.00052	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-18	ND	C	0.020	0.00045	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-19	ND		0.010	0.00063	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-20	0.00328	J C q	0.020	0.00076	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-21	ND	C	0.020	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-22	ND		0.010	0.00077	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-23	ND		0.010	0.00077	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-24	ND		0.010	0.00043	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-25	ND		0.010	0.00070	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-26	ND	C	0.020	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-27	ND		0.010	0.00038	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-28	0.00328	J C20 q	0.020	0.00076	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-29	ND	C26	0.020	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-30	ND	C18	0.020	0.00045	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-31	ND		0.020	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-32	ND		0.010	0.00036	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-33	ND	C21	0.020	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-34	ND		0.010	0.00080	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-35	ND		0.010	0.00078	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-36	ND		0.010	0.00075	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-37	ND		0.010	0.00077	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-38	ND		0.010	0.00080	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-39	ND		0.010	0.00072	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-40	ND	C	0.030	0.00056	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-41	ND	C40	0.030	0.00056	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-42	ND		0.010	0.00056	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-43	ND	C	0.020	0.00052	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-44	0.00545	J C q	0.030	0.00049	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-45	ND	C	0.020	0.00058	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-46	ND		0.010	0.00071	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-47	0.00545	J C44 q	0.030	0.00049	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-48	ND		0.010	0.00056	ng/g		08/24/18 11:00	09/05/18 14:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23078

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00045	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-50	ND	C	0.020	0.00054	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-51	ND	C45	0.020	0.00058	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-52	0.00328	J q	0.010	0.00055	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-53	ND	C50	0.020	0.00054	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-54	ND		0.010	0.000069	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-55	ND		0.010	0.00040	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-56	ND		0.010	0.00041	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-57	ND		0.010	0.00041	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-58	ND		0.010	0.00042	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-59	ND	C	0.030	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-60	ND		0.010	0.00041	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-61	0.00576	J C q	0.040	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-62	ND	C59	0.030	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-63	ND		0.010	0.00038	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-64	ND		0.010	0.00037	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-65	0.00545	J C44 q	0.030	0.00049	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-66	0.00216	J q	0.010	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-67	ND		0.010	0.00036	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-68	ND		0.010	0.00036	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-69	ND	C49	0.020	0.00045	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-70	0.00576	J C61 q	0.040	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-71	ND	C40	0.030	0.00056	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-72	ND		0.010	0.00040	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-73	ND	C43	0.020	0.00052	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-74	0.00576	J C61 q	0.040	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-75	ND	C59	0.030	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-76	0.00576	J C61 q	0.040	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-77	ND		0.010	0.00038	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-78	ND		0.010	0.00042	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-79	ND		0.010	0.00036	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-80	ND		0.010	0.00035	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-81	ND		0.010	0.00039	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-82	ND		0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-83	ND	C	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-84	ND		0.010	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-85	ND	C	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-86	ND	C	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-87	ND	C86	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-88	ND	C	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-89	ND		0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-90	0.00281	J C q	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-91	ND	C88	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-92	ND		0.010	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-93	ND	C	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-94	ND		0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-95	0.00398	J	0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-96	ND		0.010	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23078

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND	C86	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-98	ND	C	0.020	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-99	ND	C83	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-100	ND	C93	0.020	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-101	0.00281	J C90 q	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-102	ND	C98	0.020	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-103	ND		0.010	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-104	ND		0.010	0.000089	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-105	0.00229	J q	0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-106	ND		0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-107	ND		0.010	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-108	ND	C	0.020	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-109	ND	C86	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-110	0.00302	J C q	0.020	0.000085	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-111	ND		0.010	0.000082	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-112	ND		0.010	0.000086	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-113	0.00281	J C90 q	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-114	ND		0.010	0.00015	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-115	0.00302	J C110 q	0.020	0.000085	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-116	ND	C85	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-117	ND	C85	0.030	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-118	0.00432	J	0.010	0.00015	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-119	ND	C86	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-120	ND		0.010	0.000083	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-121	ND		0.010	0.000086	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-122	ND		0.010	0.00019	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-123	ND		0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-124	ND	C108	0.020	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-125	ND	C86	0.060	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-126	ND		0.010	0.00019	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-127	ND		0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-128	ND	C	0.020	0.00081	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-129	0.00835	J C q	0.040	0.00084	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-130	ND		0.010	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-131	ND		0.010	0.0012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-132	ND		0.010	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-133	ND		0.010	0.0010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-134	ND	C	0.020	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-135	ND	C	0.020	0.000064	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-136	ND		0.010	0.000046	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-137	ND		0.010	0.00095	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-138	0.00835	J C129 q	0.040	0.00084	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-139	ND	C	0.020	0.00093	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-140	ND	C139	0.020	0.00093	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-141	ND		0.010	0.00098	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-142	ND		0.010	0.0010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-143	ND	C134	0.020	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-144	ND		0.010	0.000058	ng/g		08/24/18 11:00	09/05/18 14:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23078

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.010	0.000044	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-146	ND		0.010	0.00092	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-147	0.00389	J C q	0.020	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-148	ND		0.010	0.000062	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-149	0.00389	J C147 q	0.020	0.0011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-150	ND		0.010	0.000042	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-151	ND	C135	0.020	0.000064	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-152	ND		0.010	0.000045	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-153	0.00321	J C q	0.020	0.00073	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-154	ND		0.010	0.000050	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-155	ND		0.010	0.000042	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-156	ND	C	0.020	0.00088	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-157	ND	C156	0.020	0.00088	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-158	ND		0.010	0.00066	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-159	ND		0.010	0.00070	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-160	0.00835	J C129 q	0.040	0.00084	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-161	ND		0.010	0.00069	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-162	ND		0.010	0.00069	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-163	0.00835	J C129 q	0.040	0.00084	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-164	ND		0.010	0.00074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-165	ND		0.010	0.00079	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-166	ND	C128	0.020	0.00081	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-167	ND		0.010	0.00054	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-168	0.00321	J C153 q	0.020	0.00073	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-169	ND		0.010	0.00054	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-170	ND		0.010	0.00021	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-171	ND	C	0.020	0.00019	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-172	ND		0.010	0.00019	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-173	ND	C171	0.020	0.00019	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-174	ND		0.010	0.00018	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-175	ND		0.010	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-176	ND		0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-177	ND		0.010	0.00018	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-178	ND		0.010	0.00018	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-179	0.00134	J q	0.010	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-180	ND	C	0.020	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-181	ND		0.010	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-182	ND		0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-183	ND	C	0.020	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-184	ND		0.010	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-185	ND	C183	0.020	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-186	ND		0.010	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-187	ND		0.010	0.00016	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-188	ND		0.010	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-189	ND		0.010	0.00017	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-190	ND		0.010	0.00012	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-191	ND		0.010	0.00013	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-192	ND		0.010	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23078

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	ND	C180	0.020	0.00014	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-194	ND		0.010	0.000074	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-195	ND		0.010	0.000081	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-196	ND		0.010	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-197	ND		0.010	0.000085	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-198	ND	C	0.020	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-199	ND	C198	0.020	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-200	ND		0.010	0.000075	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-201	ND		0.010	0.000077	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-202	ND		0.010	0.000086	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-203	ND		0.010	0.00010	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-204	ND		0.010	0.000085	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-205	ND		0.010	0.000063	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-206	ND		0.010	0.00015	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-207	ND		0.010	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-208	ND		0.010	0.00011	ng/g		08/24/18 11:00	09/05/18 14:53	1
PCB-209	ND		0.010	0.000067	ng/g		08/24/18 11:00	09/05/18 14:53	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	29	*	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-3L	24	* q	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-4L	31		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-15L	27	*	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-19L	35		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-37L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-54L	32		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-77L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-81L	28	*	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-104L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-105L	34		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-114L	33		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-118L	34		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-123L	33		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-126L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-155L	34		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-156L	33	C	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-157L	33	C156	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-167L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-169L	31		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-170L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-188L	34		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-189L	28	*	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-202L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-205L	27	*	30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-206L	31		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-208L	31		30 - 140	08/24/18 11:00	09/05/18 14:53	1
PCB-209L	30		30 - 140	08/24/18 11:00	09/05/18 14:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23078/16-B
Matrix: Solid
Analysis Batch: 23336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23078

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125	08/24/18 11:00	09/05/18 14:53	1
PCB-111L	90		40 - 125	08/24/18 11:00	09/05/18 14:53	1
PCB-178L	99		40 - 125	08/24/18 11:00	09/05/18 14:53	1

Lab Sample ID: LCS 140-23078/17-B
Matrix: Solid
Analysis Batch: 23336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.414		ng/g		83	50 - 150
PCB-3	0.500	0.441		ng/g		88	50 - 150
PCB-4	0.500	0.478		ng/g		96	50 - 150
PCB-15	0.500	0.524		ng/g		105	50 - 150
PCB-19	0.500	0.533		ng/g		107	50 - 150
PCB-37	0.500	0.493		ng/g		99	50 - 150
PCB-54	0.500	0.506		ng/g		101	50 - 150
PCB-77	0.500	0.529		ng/g		106	50 - 150
PCB-81	0.500	0.504		ng/g		101	50 - 150
PCB-104	0.500	0.514		ng/g		103	50 - 150
PCB-105	0.500	0.528		ng/g		106	50 - 150
PCB-114	0.500	0.571		ng/g		114	50 - 150
PCB-118	0.500	0.558		ng/g		112	50 - 150
PCB-123	0.500	0.595		ng/g		119	50 - 150
PCB-126	0.500	0.567		ng/g		113	50 - 150
PCB-155	0.500	0.511		ng/g		102	50 - 150
PCB-156	1.00	1.10	C	ng/g		110	50 - 150
PCB-157	1.00	1.10	C156	ng/g		110	50 - 150
PCB-167	0.500	0.560		ng/g		112	50 - 150
PCB-169	0.500	0.485		ng/g		97	50 - 150
PCB-188	0.500	0.548		ng/g		110	50 - 150
PCB-189	0.500	0.545		ng/g		109	50 - 150
PCB-202	0.500	0.482		ng/g		96	50 - 150
PCB-205	0.500	0.580		ng/g		116	50 - 150
PCB-206	0.500	0.537		ng/g		107	50 - 150
PCB-208	0.500	0.548		ng/g		110	50 - 150
PCB-209	0.500	0.556		ng/g		111	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	38		30 - 140
PCB-3L	34		30 - 140
PCB-4L	39		30 - 140
PCB-15L	37		30 - 140
PCB-19L	51		30 - 140
PCB-37L	42		30 - 140
PCB-54L	42		30 - 140
PCB-77L	37		30 - 140
PCB-81L	38		30 - 140
PCB-104L	41		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: LCS 140-23078/17-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23078

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-105L	45		30 - 140
PCB-114L	45		30 - 140
PCB-118L	46		30 - 140
PCB-123L	45		30 - 140
PCB-126L	42		30 - 140
PCB-155L	44		30 - 140
PCB-156L	44	C	30 - 140
PCB-157L	44	C156	30 - 140
PCB-167L	43		30 - 140
PCB-169L	43		30 - 140
PCB-170L	42		30 - 140
PCB-188L	47		30 - 140
PCB-189L	39		30 - 140
PCB-202L	55		30 - 140
PCB-205L	37		30 - 140
PCB-206L	41		30 - 140
PCB-208L	43		30 - 140
PCB-209L	40		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	96		40 - 125
PCB-111L	90		40 - 125
PCB-178L	102		40 - 125

Lab Sample ID: LCSD 140-23078/18-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23078

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.432		ng/g		86	50 - 150	4	50
PCB-3	0.500	0.441		ng/g		88	50 - 150	0	50
PCB-4	0.500	0.536	G	ng/g		107	50 - 150	11	50
PCB-15	0.500	0.596	G	ng/g		119	50 - 150	13	50
PCB-19	0.500	0.588		ng/g		118	50 - 150	10	50
PCB-37	0.500	0.532		ng/g		106	50 - 150	8	50
PCB-54	0.500	0.498		ng/g		100	50 - 150	2	50
PCB-77	0.500	0.506		ng/g		101	50 - 150	4	50
PCB-81	0.500	0.501		ng/g		100	50 - 150	1	50
PCB-104	0.500	0.528		ng/g		106	50 - 150	3	50
PCB-105	0.500	0.514		ng/g		103	50 - 150	3	50
PCB-114	0.500	0.539		ng/g		108	50 - 150	6	50
PCB-118	0.500	0.547		ng/g		109	50 - 150	2	50
PCB-123	0.500	0.626		ng/g		125	50 - 150	5	50
PCB-126	0.500	0.568		ng/g		114	50 - 150	0	50
PCB-155	0.500	0.512		ng/g		102	50 - 150	0	50
PCB-156	1.00	1.09	C	ng/g		109	50 - 150	1	50
PCB-157	1.00	1.09	C156	ng/g		109	50 - 150	1	50
PCB-167	0.500	0.544		ng/g		109	50 - 150	3	50

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: LCSD 140-23078/18-B

Matrix: Solid

Analysis Batch: 23336

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23078

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.469		ng/g		94	50 - 150	3	50
PCB-188	0.500	0.521		ng/g		104	50 - 150	5	50
PCB-189	0.500	0.546		ng/g		109	50 - 150	0	50
PCB-202	0.500	0.504		ng/g		101	50 - 150	4	50
PCB-205	0.500	0.580		ng/g		116	50 - 150	0	50
PCB-206	0.500	0.535		ng/g		107	50 - 150	0	50
PCB-208	0.500	0.559		ng/g		112	50 - 150	2	50
PCB-209	0.500	0.574		ng/g		115	50 - 150	3	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	21 *		30 - 140
PCB-3L	20 *		30 - 140
PCB-4L	19 *		30 - 140
PCB-15L	18 *		30 - 140
PCB-19L	20 * q		30 - 140
PCB-37L	20 *		30 - 140
PCB-54L	20 *		30 - 140
PCB-77L	21 *		30 - 140
PCB-81L	20 *		30 - 140
PCB-104L	18 *		30 - 140
PCB-105L	22 *		30 - 140
PCB-114L	23 *		30 - 140
PCB-118L	22 *		30 - 140
PCB-123L	21 *		30 - 140
PCB-126L	21 *		30 - 140
PCB-155L	24 *		30 - 140
PCB-156L	22 C *		30 - 140
PCB-157L	22 * C156		30 - 140
PCB-167L	22 *		30 - 140
PCB-169L	21 *		30 - 140
PCB-170L	21 *		30 - 140
PCB-188L	23 *		30 - 140
PCB-189L	21 *		30 - 140
PCB-202L	25 *		30 - 140
PCB-205L	19 *		30 - 140
PCB-206L	22 *		30 - 140
PCB-208L	21 *		30 - 140
PCB-209L	22 *		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	95		40 - 125
PCB-111L	91		40 - 125
PCB-178L	104		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000050	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-2	0.000311	J q	0.010	0.000059	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-3	ND		0.010	0.000068	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-4	ND		0.020	0.0057	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-5	ND		0.010	0.0049	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-6	ND		0.010	0.0043	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-7	ND		0.010	0.0044	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-8	ND		0.020	0.0040	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-9	ND		0.010	0.0046	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-10	ND		0.010	0.0049	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-11	0.00426	J q	0.020	0.0042	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-12	ND	C	0.020	0.0044	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-13	ND	C12	0.020	0.0044	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-14	ND		0.010	0.0037	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-15	ND		0.010	0.0049	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-16	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-17	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-18	0.00152	J C	0.020	0.000092	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-19	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-20	ND	C	0.020	0.00031	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-21	0.000625	J q C	0.020	0.00030	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-22	ND		0.010	0.00032	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-23	ND		0.010	0.00031	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-24	ND		0.010	0.000088	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-25	ND		0.010	0.00029	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-26	ND	C	0.020	0.00030	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-27	ND		0.010	0.000076	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-28	ND	C20	0.020	0.00031	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-29	ND	C26	0.020	0.00030	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-30	0.00152	J C18	0.020	0.000092	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-31	ND		0.020	0.00030	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-32	0.000358	J q	0.010	0.000073	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-33	0.000625	J q C21	0.020	0.00030	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-34	ND		0.010	0.00033	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-35	ND		0.010	0.00032	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-36	ND		0.010	0.00031	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-37	ND		0.010	0.00032	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-38	ND		0.010	0.00033	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-39	ND		0.010	0.00029	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-40	ND	C	0.030	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-41	ND	C40	0.030	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-42	ND		0.010	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-43	ND	C	0.020	0.00018	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-44	0.00310	J q C	0.030	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-45	ND	C	0.020	0.00021	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-46	ND		0.010	0.00025	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-47	0.00310	J q C44	0.030	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-48	ND		0.010	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-50	ND	C	0.020	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-51	ND	C45	0.020	0.00021	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-52	0.00139	J q	0.010	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-53	ND	C50	0.020	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-54	ND		0.010	0.000042	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-55	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-56	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-57	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-58	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-59	ND	C	0.030	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-60	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-61	0.00209	J C	0.040	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-62	ND	C59	0.030	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-63	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-64	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-65	0.00310	J q C44	0.030	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-66	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-67	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-68	0.000790	J q	0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-69	ND	C49	0.020	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-70	0.00209	J C61	0.040	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-71	ND	C40	0.030	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-72	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-73	ND	C43	0.020	0.00018	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-74	0.00209	J C61	0.040	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-75	ND	C59	0.030	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-76	0.00209	J C61	0.040	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-77	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-78	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-79	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-80	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-81	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-82	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-83	ND	C	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-84	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-85	ND	C	0.030	0.000084	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-86	ND	C	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-87	ND	C86	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-88	ND	C	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-89	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-90	ND	C	0.030	0.000086	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-91	ND	C88	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-92	ND		0.010	0.000098	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-93	ND	C	0.020	0.000099	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-94	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-95	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-96	ND		0.010	0.000084	ng/g		08/28/18 06:15	09/06/18 13:29	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND	C86	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-98	ND	C	0.020	0.000096	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-99	ND	C83	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-100	ND	C93	0.020	0.000099	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-101	ND	C90	0.030	0.000086	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-102	ND	C98	0.020	0.000096	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-103	ND		0.010	0.000099	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-104	ND		0.010	0.000075	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-105	ND		0.010	0.000097	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-106	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-107	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-108	0.000682	J q C	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-109	ND	C86	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-110	0.00114	J q C	0.020	0.000072	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-111	ND		0.010	0.000069	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-112	ND		0.010	0.000073	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-113	ND	C90	0.030	0.000086	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-114	ND		0.010	0.000095	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-115	0.00114	J q C110	0.020	0.000072	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-116	ND	C85	0.030	0.000084	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-117	ND	C85	0.030	0.000084	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-118	ND		0.010	0.000093	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-119	ND	C86	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-120	ND		0.010	0.000071	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-121	ND		0.010	0.000073	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-122	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-123	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-124	0.000682	J q C108	0.020	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-125	ND	C86	0.060	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-126	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-127	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-128	ND	C	0.020	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-129	0.00115	J q C	0.040	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-130	ND		0.010	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-131	ND		0.010	0.00021	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-132	ND		0.010	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-133	ND		0.010	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-134	ND	C	0.020	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-135	ND	C	0.020	0.000027	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-136	ND		0.010	0.000020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-137	ND		0.010	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-138	0.00115	J q C129	0.040	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-139	ND	C	0.020	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-140	ND	C139	0.020	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-141	ND		0.010	0.00018	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-142	ND		0.010	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-143	ND	C134	0.020	0.00020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-144	ND		0.010	0.000025	ng/g		08/28/18 06:15	09/06/18 13:29	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.010	0.000019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-146	ND		0.010	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-147	0.000980	J q C	0.020	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-148	ND		0.010	0.000026	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-149	0.000980	J q C147	0.020	0.00019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-150	ND		0.010	0.000018	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-151	ND	C135	0.020	0.000027	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-152	ND		0.010	0.000019	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-153	0.00120	J q C	0.020	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-154	ND		0.010	0.000021	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-155	ND		0.010	0.000018	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-156	0.000422	J q C	0.020	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-157	0.000422	J q C156	0.020	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-158	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-159	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-160	0.00115	J q C129	0.040	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-161	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-162	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-163	0.00115	J q C129	0.040	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-164	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-165	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-166	ND	C128	0.020	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-167	ND		0.010	0.000096	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-168	0.00120	J q C153	0.020	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-169	ND		0.010	0.000093	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-170	ND		0.010	0.00017	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-171	ND	C	0.020	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-172	ND		0.010	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-173	ND	C171	0.020	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-174	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-175	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-176	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-177	ND		0.010	0.00015	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-178	ND		0.010	0.00016	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-179	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-180	0.000363	J q C	0.020	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-181	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-182	ND		0.010	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-183	ND	C	0.020	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-184	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-185	ND	C183	0.020	0.00014	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-186	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-187	ND		0.010	0.00013	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-188	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-189	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-190	ND		0.010	0.00010	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-191	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-192	ND		0.010	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	0.000363	J q C180	0.020	0.00012	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-194	0.000470	J q	0.010	0.000042	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-195	ND		0.010	0.000046	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-196	ND		0.010	0.000029	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-197	ND		0.010	0.000022	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-198	ND	C	0.020	0.000029	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-199	ND	C198	0.020	0.000029	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-200	ND		0.010	0.000020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-201	ND		0.010	0.000020	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-202	ND		0.010	0.000023	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-203	0.000540	J q	0.010	0.000026	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-204	ND		0.010	0.000022	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-205	ND		0.010	0.000035	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-206	ND		0.010	0.00011	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-207	ND		0.010	0.000081	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-208	ND		0.010	0.000085	ng/g		08/28/18 06:15	09/06/18 13:29	1
PCB-209	ND		0.010	0.000067	ng/g		08/28/18 06:15	09/06/18 13:29	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	77		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-3L	75		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-4L	74		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-15L	70		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-19L	81		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-37L	80		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-54L	72		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-77L	78		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-81L	78		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-104L	80		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-105L	88		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-114L	87		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-118L	89		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-123L	84		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-126L	84		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-155L	84		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-156L	85	C	30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-157L	85	C156	30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-167L	86		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-169L	90		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-170L	87		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-188L	88		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-189L	80		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-202L	100		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-205L	73		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-206L	83		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-208L	81		30 - 140	08/28/18 06:15	09/06/18 13:29	1
PCB-209L	80		30 - 140	08/28/18 06:15	09/06/18 13:29	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: MB 140-23147/17-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23147

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	08/28/18 06:15	09/06/18 13:29	1
PCB-111L	95		40 - 125	08/28/18 06:15	09/06/18 13:29	1
PCB-178L	95		40 - 125	08/28/18 06:15	09/06/18 13:29	1

Lab Sample ID: LCS 140-23147/18-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.442		ng/g		88	50 - 150
PCB-3	0.500	0.438		ng/g		88	50 - 150
PCB-4	0.500	0.485		ng/g		97	50 - 150
PCB-15	0.500	0.547		ng/g		109	50 - 150
PCB-19	0.500	0.562		ng/g		112	50 - 150
PCB-37	0.500	0.526		ng/g		105	50 - 150
PCB-54	0.500	0.525		ng/g		105	50 - 150
PCB-77	0.500	0.521		ng/g		104	50 - 150
PCB-81	0.500	0.490		ng/g		98	50 - 150
PCB-104	0.500	0.549		ng/g		110	50 - 150
PCB-105	0.500	0.551		ng/g		110	50 - 150
PCB-114	0.500	0.574		ng/g		115	50 - 150
PCB-118	0.500	0.570		ng/g		114	50 - 150
PCB-123	0.500	0.579		ng/g		116	50 - 150
PCB-126	0.500	0.589		ng/g		118	50 - 150
PCB-155	0.500	0.537		ng/g		107	50 - 150
PCB-156	1.00	1.11	C	ng/g		111	50 - 150
PCB-157	1.00	1.11	C156	ng/g		111	50 - 150
PCB-167	0.500	0.551		ng/g		110	50 - 150
PCB-169	0.500	0.498		ng/g		100	50 - 150
PCB-188	0.500	0.525		ng/g		105	50 - 150
PCB-189	0.500	0.581		ng/g		116	50 - 150
PCB-202	0.500	0.501		ng/g		100	50 - 150
PCB-205	0.500	0.605		ng/g		121	50 - 150
PCB-206	0.500	0.568		ng/g		114	50 - 150
PCB-208	0.500	0.567		ng/g		113	50 - 150
PCB-209	0.500	0.558		ng/g		112	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	74		30 - 140
PCB-3L	72		30 - 140
PCB-4L	77		30 - 140
PCB-15L	75		30 - 140
PCB-19L	90		30 - 140
PCB-37L	80		30 - 140
PCB-54L	77		30 - 140
PCB-77L	76		30 - 140
PCB-81L	77		30 - 140
PCB-104L	79		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: LCS 140-23147/18-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23147

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-105L	88		30 - 140
PCB-114L	87		30 - 140
PCB-118L	86		30 - 140
PCB-123L	84		30 - 140
PCB-126L	84		30 - 140
PCB-155L	89		30 - 140
PCB-156L	85	C	30 - 140
PCB-157L	85	C156	30 - 140
PCB-167L	86		30 - 140
PCB-169L	86		30 - 140
PCB-170L	85		30 - 140
PCB-188L	94		30 - 140
PCB-189L	80		30 - 140
PCB-202L	98		30 - 140
PCB-205L	74		30 - 140
PCB-206L	80		30 - 140
PCB-208L	77		30 - 140
PCB-209L	81		30 - 140

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	92		40 - 125
PCB-111L	89		40 - 125
PCB-178L	98		40 - 125

Lab Sample ID: LCSD 140-23147/19-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	Limit	
PCB-1	0.500	0.441		ng/g		88	50 - 150	0	50	
PCB-3	0.500	0.465		ng/g		93	50 - 150	6	50	
PCB-4	0.500	0.521		ng/g		104	50 - 150	7	50	
PCB-15	0.500	0.539		ng/g		108	50 - 150	1	50	
PCB-19	0.500	0.569		ng/g		114	50 - 150	1	50	
PCB-37	0.500	0.529		ng/g		106	50 - 150	1	50	
PCB-54	0.500	0.533		ng/g		107	50 - 150	1	50	
PCB-77	0.500	0.524		ng/g		105	50 - 150	1	50	
PCB-81	0.500	0.508		ng/g		102	50 - 150	4	50	
PCB-104	0.500	0.556		ng/g		111	50 - 150	1	50	
PCB-105	0.500	0.545		ng/g		109	50 - 150	1	50	
PCB-114	0.500	0.591		ng/g		118	50 - 150	3	50	
PCB-118	0.500	0.562		ng/g		112	50 - 150	1	50	
PCB-123	0.500	0.604		ng/g		121	50 - 150	4	50	
PCB-126	0.500	0.590		ng/g		118	50 - 150	0	50	
PCB-155	0.500	0.538		ng/g		108	50 - 150	0	50	
PCB-156	1.00	1.10	C	ng/g		110	50 - 150	1	50	
PCB-157	1.00	1.10	C156	ng/g		110	50 - 150	1	50	
PCB-167	0.500	0.569		ng/g		114	50 - 150	3	50	

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78527-9

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

Lab Sample ID: LCSD 140-23147/19-B

Matrix: Solid

Analysis Batch: 23367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.505		ng/g		101	50 - 150	1	50
PCB-188	0.500	0.554		ng/g		111	50 - 150	5	50
PCB-189	0.500	0.562		ng/g		112	50 - 150	3	50
PCB-202	0.500	0.510		ng/g		102	50 - 150	2	50
PCB-205	0.500	0.603		ng/g		121	50 - 150	0	50
PCB-206	0.500	0.546		ng/g		109	50 - 150	4	50
PCB-208	0.500	0.538		ng/g		108	50 - 150	5	50
PCB-209	0.500	0.568		ng/g		114	50 - 150	2	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	73		30 - 140
PCB-3L	70		30 - 140
PCB-4L	75		30 - 140
PCB-15L	72		30 - 140
PCB-19L	92		30 - 140
PCB-37L	82		30 - 140
PCB-54L	74		30 - 140
PCB-77L	80		30 - 140
PCB-81L	79		30 - 140
PCB-104L	77		30 - 140
PCB-105L	87		30 - 140
PCB-114L	88		30 - 140
PCB-118L	86		30 - 140
PCB-123L	85		30 - 140
PCB-126L	82		30 - 140
PCB-155L	81		30 - 140
PCB-156L	86	C	30 - 140
PCB-157L	86	C156	30 - 140
PCB-167L	84		30 - 140
PCB-169L	89		30 - 140
PCB-170L	86		30 - 140
PCB-188L	86		30 - 140
PCB-189L	76		30 - 140
PCB-202L	98		30 - 140
PCB-205L	72		30 - 140
PCB-206L	80		30 - 140
PCB-208L	81		30 - 140
PCB-209L	82		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	88		40 - 125
PCB-111L	92		40 - 125
PCB-178L	97		40 - 125

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B434

Date Collected: 06/29/18 11:36

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-1

Matrix: Solid

Percent Solids: 51.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23367	09/06/18 17:35	MSD	TAL KNX

Client Sample ID: PDI-SG-B435

Date Collected: 06/29/18 13:43

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-2

Matrix: Solid

Percent Solids: 51.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23336	09/05/18 19:00	JMN	TAL KNX

Client Sample ID: PDI-SG-B441

Date Collected: 06/29/18 15:20

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-3

Matrix: Solid

Percent Solids: 62.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23336	09/05/18 20:01	JMN	TAL KNX

Client Sample ID: PDI-SG-B442

Date Collected: 06/29/18 16:22

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-4

Matrix: Solid

Percent Solids: 47.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23336	09/05/18 21:03	JMN	TAL KNX

Client Sample ID: PDI-SG-B439

Date Collected: 06/29/18 11:51

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-5

Matrix: Solid

Percent Solids: 55.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23367	09/06/18 18:36	MSD	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B440

Date Collected: 06/29/18 14:12

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-6

Matrix: Solid

Percent Solids: 41.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23365	09/06/18 03:21	LKM	TAL KNX

Client Sample ID: PDI-SG-B445

Date Collected: 06/29/18 16:35

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-7

Matrix: Solid

Percent Solids: 59.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23367	09/06/18 19:38	MSD	TAL KNX

Client Sample ID: PDI-SG-B446

Date Collected: 06/30/18 11:36

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-8

Matrix: Solid

Percent Solids: 58.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23365	09/06/18 05:24	LKM	TAL KNX

Client Sample ID: PDI-SG-B447

Date Collected: 06/30/18 14:02

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-9

Matrix: Solid

Percent Solids: 50.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23365	09/06/18 06:26	LKM	TAL KNX

Client Sample ID: PDI-SG-B449

Date Collected: 06/30/18 15:38

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-10

Matrix: Solid

Percent Solids: 51.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23365	09/06/18 07:27	LKM	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B443

Date Collected: 06/30/18 10:21

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-11

Matrix: Solid

Percent Solids: 59.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23367	09/06/18 20:49	MSD	TAL KNX

Client Sample ID: PDI-SG-B444

Date Collected: 06/30/18 11:10

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-12

Matrix: Solid

Percent Solids: 50.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 01:24	PMP	TAL KNX

Client Sample ID: PDI-SG-B448

Date Collected: 06/30/18 12:08

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-13

Matrix: Solid

Percent Solids: 54.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23078	08/24/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			23142	08/27/18 20:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 02:26	PMP	TAL KNX

Client Sample ID: PDI-SG-B451

Date Collected: 06/30/18 14:45

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-14

Matrix: Solid

Percent Solids: 66.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 03:27	PMP	TAL KNX

Client Sample ID: PDI-SG-B455

Date Collected: 06/30/18 15:55

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-15

Matrix: Solid

Percent Solids: 59.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 04:28	PMP	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B450

Lab Sample ID: 580-78527-16

Date Collected: 07/01/18 10:30

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 61.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 05:30	PMP	TAL KNX

Client Sample ID: PDI-SG-B454

Lab Sample ID: 580-78527-17

Date Collected: 07/01/18 12:42

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 58.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 06:31	PMP	TAL KNX

Client Sample ID: PDI-SG-B453

Lab Sample ID: 580-78527-18

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 48.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 07:33	PMP	TAL KNX

Client Sample ID: PDI-SG-B453-D

Lab Sample ID: 580-78527-19

Date Collected: 07/01/18 11:41

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 49.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23402	09/07/18 08:34	PMP	TAL KNX

Client Sample ID: PDI-SG-B452

Lab Sample ID: 580-78527-20

Date Collected: 07/01/18 15:13

Matrix: Solid

Date Received: 07/02/18 14:30

Percent Solids: 54.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23410	09/07/18 13:25	JMN	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78527-9

Client Sample ID: PDI-SG-B457

Date Collected: 07/01/18 15:30

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-21

Matrix: Solid

Percent Solids: 53.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23431	09/08/18 06:45	PMP	TAL KNX

Client Sample ID: PDI-SG-B459

Date Collected: 07/01/18 12:20

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-22

Matrix: Solid

Percent Solids: 50.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		5	23431	09/08/18 07:46	PMP	TAL KNX

Client Sample ID: PDI-SG-B460

Date Collected: 07/01/18 11:15

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-23

Matrix: Solid

Percent Solids: 43.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23410	09/07/18 16:29	JMN	TAL KNX

Client Sample ID: PDI-SG-B461

Date Collected: 07/01/18 10:00

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-24

Matrix: Solid

Percent Solids: 50.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23410	09/07/18 17:31	JMN	TAL KNX

Client Sample ID: PDI-SG-B461-D

Date Collected: 07/01/18 10:00

Date Received: 07/02/18 14:30

Lab Sample ID: 580-78527-25

Matrix: Solid

Percent Solids: 50.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			23147	08/28/18 06:14	CLI	TAL KNX
Total/NA	Cleanup	Split			23274	08/31/18 10:46	ALS	TAL KNX
Total/NA	Analysis	1668A		1	23410	09/07/18 18:32	JMN	TAL KNX

Laboratory References:

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

TestAmerica Seattle

Accreditation/Certification Summary

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

TestAmerica Job ID: 580-78527-9

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
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	07-31-19
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	07-31-19
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 (VW/SW)	State Program	4	64	12-31-18
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State Program	6	9415	08-31-19
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	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-18 *
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	08-31-19

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

TestAmerica Seattle

Sample Summary

Client: AECOM

TestAmerica Job ID: 580-78527-9

Project/Site: Portland Harbor Pre-Remedial Design

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-78527-1	PDI-SG-B434	Solid	06/29/18 11:36	07/02/18 14:30
580-78527-2	PDI-SG-B435	Solid	06/29/18 13:43	07/02/18 14:30
580-78527-3	PDI-SG-B441	Solid	06/29/18 15:20	07/02/18 14:30
580-78527-4	PDI-SG-B442	Solid	06/29/18 16:22	07/02/18 14:30
580-78527-5	PDI-SG-B439	Solid	06/29/18 11:51	07/02/18 14:30
580-78527-6	PDI-SG-B440	Solid	06/29/18 14:12	07/02/18 14:30
580-78527-7	PDI-SG-B445	Solid	06/29/18 16:35	07/02/18 14:30
580-78527-8	PDI-SG-B446	Solid	06/30/18 11:36	07/02/18 14:30
580-78527-9	PDI-SG-B447	Solid	06/30/18 14:02	07/02/18 14:30
580-78527-10	PDI-SG-B449	Solid	06/30/18 15:38	07/02/18 14:30
580-78527-11	PDI-SG-B443	Solid	06/30/18 10:21	07/02/18 14:30
580-78527-12	PDI-SG-B444	Solid	06/30/18 11:10	07/02/18 14:30
580-78527-13	PDI-SG-B448	Solid	06/30/18 12:08	07/02/18 14:30
580-78527-14	PDI-SG-B451	Solid	06/30/18 14:45	07/02/18 14:30
580-78527-15	PDI-SG-B455	Solid	06/30/18 15:55	07/02/18 14:30
580-78527-16	PDI-SG-B450	Solid	07/01/18 10:30	07/02/18 14:30
580-78527-17	PDI-SG-B454	Solid	07/01/18 12:42	07/02/18 14:30
580-78527-18	PDI-SG-B453	Solid	07/01/18 11:41	07/02/18 14:30
580-78527-19	PDI-SG-B453-D	Solid	07/01/18 11:41	07/02/18 14:30
580-78527-20	PDI-SG-B452	Solid	07/01/18 15:13	07/02/18 14:30
580-78527-21	PDI-SG-B457	Solid	07/01/18 15:30	07/02/18 14:30
580-78527-22	PDI-SG-B459	Solid	07/01/18 12:20	07/02/18 14:30
580-78527-23	PDI-SG-B460	Solid	07/01/18 11:15	07/02/18 14:30
580-78527-24	PDI-SG-B461	Solid	07/01/18 10:00	07/02/18 14:30
580-78527-25	PDI-SG-B461-D	Solid	07/01/18 10:00	07/02/18 14:30

TestAmerica Seattle

SURFACE SEDIMENT CHAIN OF CUSTODY														
TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 PH: 253-922-2310 Fax: 253-922-5047		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 Sample Type: D/U		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) ☐ 21 days ☒ Other ASAP		Site Contact: Jennifer Ray Laboratory Contact: Elaine Walker Carrier: Courier 7/2/2018 COC No: 1 of 3 pages		Sample Specific Notes:						
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 166A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Ds, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060 (104C & 70C)	Archive Archive -20 C	PAHs, BEHP, Tributyltin, 8270-SIM, 8270-L, Kron/Unger
PDI-SG-B434	6/29/2018	11:36	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B435	6/29/2018	13:43	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B441	6/29/2018	15:20	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B442	6/29/2018	16:22	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B439	6/29/2018	11:51	SS		SH	7		H	H	H	x	H	H	H
PDI-SG-B440	6/29/2018	14:12	SS		SH	7		H	H	H	x	H	H	H
PDI-SG-B445	6/29/2018	16:35	SS		SH	7		H	H	H	x	H	H	H
PDI-SG-B446	6/30/2018	11:36	SS		SH	7		H	H	H	x	H	H	H
PDI-SG-B447	6/30/2018	14:02	SS		SH	7		H	H	H	x	H	H	H
PDI-SG-B449	6/30/2018	15:38	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B443	6/30/2018	10:21	SS		MT	7		H	H	H	x	H	H	H
PDI-SG-B444	6/30/2018	15:40	SS		MT	7		H	H	H	x	H	H	H


 580-78527 Chain of Custody

Sample Disposal	
Return To Client	Archive For 12 Months
☐	☒

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)

Special Instructions/QC Requirements & Comments:
 Analyze samples for grain size ASAP. Hold (H) remaining analyses pending further instruction.
 Separate reports for each lab.

Relinquished by:	Company:	Date/Time:
<i>[Signature]</i>	AECOM	7/2/18 1257
<i>[Signature]</i>	M.E.	7/2/18 1430
<i>[Signature]</i>	Company:	7/2/18 1430

SURFACE SEDIMENT CHAIN OF CUSTODY										7/2/2018		COC No. 1		2 of 3		pages																																																																																																																																																																														
TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047										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 Sample Type: D/U																																																																																																																																																																																				
Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) ☐ 21 days ☒ Other ASAP										Site Contact: Jennifer Ray Laboratory Contact: Elaine-Walker Carrier: Courier																																																																																																																																																																																				
Sample Identification										Sample Specific Notes:																																																																																																																																																																																				
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Relinquished by: <i>[Signature]</i> Company: <i>TestAmerica</i> Date/Time: 7/2/18/1257										Received by: <i>[Signature]</i> Company: M-E Date/Time: 7/2/18/1257																																																																																																																																																																																				
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TestAmerica-Seattle		SURFACE SEDIMENT CHAIN OF CUSTODY										7/2/2018		COC No. 1			
5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010				Site Contact: Jennifer Ray Laboratory Contact: Elaine Walker				Carrier: Courier				1 of 3 pages			
Client Contact		Analysis Turnaround Time				PCB Contingents 168A PCDD/Fs 1613B TPH Dissolved Metals Mercury NWTPH-Dx 6020B, 7471A Grain size ASTM D7928/D6913 Total organic carbon, Total solids 9060 (104C & 70C) Archive Archive -20 C PAHs, BEHP, Tributyltin, 8270-SIM, 8270- L.L. Kron/Unger								Sample Specific Notes:			
AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone (206) 438-2700 Fax 1-(866) 495-5288		Calendar (C) or Work Days (W)															
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling		☐ 21 days ☒ Other _ASAP_															
Portland, OR Project #: 60566335 Study: Surface Sediment																	
Sample Type: D/U		Sample Date		Sample Time		Matrix		QC Sample		Sampler's Initials		Total No. of Cont.					
PDI-SG-B434		6/29/2018		11:36		SS				MT		7					
PDI-SG-B435		6/29/2018		13:43		SS				MT		7					
PDI-SG-B441		6/29/2018		15:20		SS				MT		7					
PDI-SG-B442		6/29/2018		16:22		SS				MT		7					
PDI-SG-B439		6/29/2018		11:51		SS				SH		7					
PDI-SG-B440		6/29/2018		14:12		SS				SH		7					
PDI-SG-B445		6/29/2018		16:35		SS				SH		7					
PDI-SG-B446		6/30/2018		11:36		SS				SH		7					
PDI-SG-B447		6/30/2018		14:02		SS				SH		7					
PDI-SG-B449		6/30/2018		15:38		SS				MT		7					
PDI-SG-B443		6/30/2018		10:21		SS				MT		7					
PDI-SG-B444		6/30/2018		15:20		SS				MT		7					
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: Analyze samples for grain size ASAP, Hold (H) remaining analyses pending further instruction. Separate reports for each lab.																	
Relinquished by: [Signature]		Company: AECOM		Date/Time: 7/2/18 1257		Received by: [Signature]		Company: M-E		Date/Time: 7/2/18 1257							
Relinquished by: [Signature]		Company: M-E		Date/Time: 7/2/18 1430		Received by: [Signature]		Company: TAPOR		Date/Time: 7/2/18 1430							
Relinquished by: [Signature]		Company: TAPOR		Date/Time: 7/2/18 1800		Received by: [Signature]		Company: TAPOR		Date/Time: 7/3/18 0945							



580-78527 Chain of Custody

6, 01, 67, 203, 02, 302

IR5 0.3/0.3
1.8/1.8
1.4/1.4 11/11/2018

TestAmerica-Seattle		SURFACE SEDIMENT CHAIN OF CUSTODY														
5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010					Site Contact: Jennifer Ray					7/2/2018 COC No: 1				
Client Contact		Analysis Turnaround Time					Laboratory Contact: Elaine-Walker					Carrier: Courier				
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 Sample Type: D/U		Calendar (C) or Work Days (W) ☐ 21 days ☒ Other ASAP										2 of 3 pages				
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diss. Metals, Mercury NWTPL-DX, 6020B, 7271A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060 (104C & 70C)	Archive Archive -20 C	PAHs, BEHP, Tributyltin, 8270-SIM, 8270-LL, Kron/Unger	Atterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SG-B448	6/30/2018	12:08	SS		MT	7		H	H	H	x	H	H	H		
PDI-SG-B451	6/30/2018	14:45	SS		AC	7		H	H	H	x	H	H	H		
PDI-SG-B455	6/30/2018	15:55	SS		AC	7		H	H	H	x	H	H	H		
PDI-SG-B450	7/1/2018	10:30	SS		SH	7		H	H	H	x	H	H	H		
PDI-SG-B454	7/1/2018	10:45	SS		SH	7		H	H	H	x	H	H	H		
PDI-SG-B453	7/1/2018	11:41	SS		SH	7		H	H	H	x	H	H	H		
PDI-SG-B453-D	7/1/2018	11:41	SS		SH	6		H	H	H		H	H	H		
PDI-SG-B452	7/1/2018	15:13	SS		SH	7		H	H	H	x	H	H	H		
PDI-SG-B457	7/1/2018	15:30	SS	MS/MSD	AC	13		H	H	H	x	H	H	H		
PDI-SG-B459	7/1/2018	12:20	SS		AC	8		H	H	H	x	H	H	H	H	
PDI-SG-B460	7/1/2018	11:15	SS		MT	8		H	H	H	x	H	H	H	H	
PDI-SG-B461	7/1/2018	10:00	SS		MT	8		H	H	H	x	H	H	H	H	
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: Analyze samples for grain size ASAP, Hold (H) remaining analyses pending further instruction. Separate reports for each lab.																
Relinquished by: [Signature]	Company: AECOM	Date/Time: 7/2/18 1257	Received by: [Signature]				Company: M-E	Date/Time: 7/2/18 1257								
Relinquished by: [Signature]	Company: M-E	Date/Time: 7/2/18 1430	Received by: [Signature]				Company: TAPOR	Date/Time: 7/2/18 1430								
Relinquished by: [Signature]	Company: TAPOR	Date/Time: 7/2/18 1800	Received by: [Signature]				Company: TAPOR	Date/Time: 7/3/18 0945								



[illegible]

Chain of Custody Record



Anrica
IN ENVIRONMENTAL TESTING

580-78527 Chain of Custody

Client Information (Sub Contract Lab)		Lab P/M: Walker, Elaine M	Page: 1 of 3	
Client Contact: Shipping/Receiving		Phone: elaine.walker@testamericainc.com	State of Origin: Oregon	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		
Address: 5815 Middlebrook Pike,		Job #: 580-78527-3		
City: Knoxville		Preservation Codes:		
State, Zip: TN, 37921		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Phone: 865-291-3000(Tel) 865-584-4315(Fax)		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Email:				
Project Name: Portland Harbor Pre-Remedial Design				
Site:				
Due Date Requested: 7/20/2018		Analysis Requested		
TAT Requested (days):		Total Number of Containers		
PO #:		Screen 1668/Screen PCB P.S (Hold)		
WO #:		1668/1668 P.Sox (MOD) 209 PCBs plus Totals		
Project #:		Field Filtered Sample (Yes or No)		
SSOW #:		Perform MS/MSD (Yes or No)		
		Preservation Code		
		Matrix (W-water, S-solid, O-wastewater, BT-Tissue, A-air)		
		Sample Type (C=Comp, G=grab)		
		Sample Time		
		Sample Date		
		Sample Identification - Client ID (Lab ID)		
		PDI-SG-B434 (580-78527-1)		
		PDI-SG-B435 (580-78527-2)		
		PDI-SG-B441 (580-78527-3)		
		PDI-SG-B442 (580-78527-4)		
		PDI-SG-B439 (580-78527-5)		
		PDI-SG-B440 (580-78527-6)		
		PDI-SG-B445 (580-78527-7)		
		PDI-SG-B446 (580-78527-8)		
		PDI-SG-B447 (580-78527-9)		
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our 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/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.				
Possible Hazard Identification				
Unconfirmed				
Deliverable Requested: I, II, III, IV, Other (specify)				
Primary Deliverable Rank: 2				
Empty Kit Relinquished by:				
Date:				
Time:				
Relinquished by:				
Date/Time:				
Relinquished by:				
Date/Time:				
Relinquished by:				
Date/Time:				
Custody Seals Intact:				
Custody Seal No.:				
Δ Yes Δ No				

Ver: 09/20/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Ver: 09/20/2016

Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:
Client Contact:		Walker, Elaine M			580-56869-3
Shipping/Receiving		Phone:	E-Mail:	State of Origin:	Page:
Company:			elaine.walker@testamericainc.com	Oregon	Page 3 of 3
TestAmerica Laboratories, Inc.		Accreditations Required (See note):			
Address:		Due Date Requested:			
5815 Middlebrook Pike,		7/20/2018			
City:		TAT Requested (days):			
Knoxville					
State, Zip:		PO #:			
TN, 37921		WO #:			
Phone:		Project #:			
865-291-3000(Tel) 865-584-4315(Fax)		58012120			
Email:		SSOW#:			
Project Name:		Site:			
Portland Harbor Pre-Remedial Design					
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Overstall, BT-Tissue, A=Air)
PDI-SG-B453-D (580-78527-19)	7/1/18	11:41 Pacific	Solid		
PDI-SG-B452 (580-78527-20)	7/1/18	15:13 Pacific	Solid		
PDI-SG-B457 (580-78527-21)	7/1/18	15:30 Pacific	Solid		
PDI-SG-B459 (580-78527-22)	7/1/18	12:20 Pacific	Solid		
PDI-SG-B460 (580-78527-23)	7/1/18	11:15 Pacific	Solid		
PDI-SG-B461 (580-78527-24)	7/1/18	10:00 Pacific	Solid		
PDI-SG-B461-D (580-78527-25)	7/1/18	10:00 Pacific	Solid		
PDI-SG-RB-20180630 (580-78527-26)	6/30/18	17:15 Pacific	Water		
Total Number of Containers		Special Instructions/Note:			
1					
1					
1					
1					
1					
1					
1					
1					
2					
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.					
Possible Hazard Identification					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Relinquished by:					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: Δ Yes Δ No					
Custody Seal No.:					
Cooler Temperature(s) °C and Other Remarks:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Date/Time: 7/5/18 14:30 Date/Time: 7/6/18 09:20 Date/Time:					
Company: THA Company: THA Company:					

Log In Number:

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	BT: 10°C CT: 10°C / Coala FedEx PO. Cwt = 16.00 / 1:2907 T-K #4423 0710 6291 RC - ND, KW 7/6/18
2. Were ambient air containers received intact?			/	☐ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C. VOST: 10°C) Thermometer ID: SC 68 Correction factor: 0.0°C	/			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	
6. Were samples received in appropriate containers?	/			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	/			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?			/	☐ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			☐ COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	/			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: 7194 2020/04	/			☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust	
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info	
Project #: _____ PM Instructions: _____					

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

Sample Receiving Associate: Re w Date: 7/6/18 QA026R30.doc, 080916



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-78527-9

Login Number: 78527

List Source: TestAmerica Seattle

List Number: 1

Creator: Antonson, Angeline D

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

TestAmerica Job ID: 580-78527-9

Project/Site: Portland Harbor Pre-Remedial Design

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

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (30-140)	PCB3L (30-140)	PCB4L (30-140)	PCB15L (30-140)	PCB19L (30-140)	PCB37L (30-140)	PCB54L (30-140)	PCB77L (30-140)
580-78527-1	PDI-SG-B434	66	68	75	73	95	81	76	74
580-78527-2	PDI-SG-B435	73	74	83	80	87 q	90	92	87
580-78527-3	PDI-SG-B441	69	68	77	77	86	84	87	80
580-78527-4	PDI-SG-B442	69	69	80	78	94	85	86	83
580-78527-5	PDI-SG-B439	69	73	81	80	92	86	65	82
580-78527-6	PDI-SG-B440	67	67	72	76	79	81	73	78
580-78527-7	PDI-SG-B445	74	78	84	84	101	91	88	85
580-78527-8	PDI-SG-B446	79	77	78	84	87	87	84	86
580-78527-9	PDI-SG-B447	71	73	79	80	90	87	81	85
580-78527-10	PDI-SG-B449	68	70	82	81	93	94	90	88
580-78527-11	PDI-SG-B443	73	77	85	86	95	95	88	89
580-78527-12	PDI-SG-B444	70	70	80	76	87	84	79	86
580-78527-13	PDI-SG-B448	76	77	84	80	95	90	87	86
580-78527-14	PDI-SG-B451	72	72	79	75	88	83	81	84
580-78527-15	PDI-SG-B455	67	68	76	74	87	83	80	82
580-78527-16	PDI-SG-B450	75	74	80	76	95	88	82	86
580-78527-17	PDI-SG-B454	70	73	79	82	92	86	84	86
580-78527-18	PDI-SG-B453	64	65	70	70	76	75	69	76
580-78527-19	PDI-SG-B453-D	72	75	80	83	89	87	84	86
580-78527-20	PDI-SG-B452	79	77	83	81	84	88	67	85
580-78527-21	PDI-SG-B457	70	72	75	78	93	89	78	85
580-78527-22	PDI-SG-B459	68	69	79	84	90	90	88	81
580-78527-23	PDI-SG-B460	69	71	76	75	84	83	81	80
580-78527-24	PDI-SG-B461	68	61 q	73	72	89	83	77	81
580-78527-25	PDI-SG-B461-D	74	73	79	75	83	83	79	80
LCS 140-23078/17-B	Lab Control Sample	38	34	39	37	51	42	42	37
LCS 140-23147/18-B	Lab Control Sample	74	72	77	75	90	80	77	76
LCSD 140-23078/18-B	Lab Control Sample Dup	21 *	20 *	19 *	18 *	20 * q	20 *	20 *	21 *
LCSD 140-23147/19-B	Lab Control Sample Dup	73	70	75	72	92	82	74	80
MB 140-23078/16-B	Method Blank	29 *	24 * q	31	27 *	35	30	32	30
MB 140-23147/17-B	Method Blank	77	75	74	70	81	80	72	78
		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)
580-78527-1	PDI-SG-B434	75	78	85	86	87	86	76	81
580-78527-2	PDI-SG-B435	85	84	93	93	92	92	85	90
580-78527-3	PDI-SG-B441	82	80	88	90	85	89	84	89
580-78527-4	PDI-SG-B442	84	81	91	92	91	91	84	90
580-78527-5	PDI-SG-B439	82	81	91	92	89	90	85	86
580-78527-6	PDI-SG-B440	78	76	82	86	82	82	73	78
580-78527-7	PDI-SG-B445	84	88	94	97	93	97	89	90
580-78527-8	PDI-SG-B446	85	81	92	91	92	90	86	93
580-78527-9	PDI-SG-B447	85	82	92	91	91	90	85	86
580-78527-10	PDI-SG-B449	89	87	94	93	96	93	87	88
580-78527-11	PDI-SG-B443	88	86	97	97	93	97	90	90
580-78527-12	PDI-SG-B444	85	78	90	92	91	89	85	85
580-78527-13	PDI-SG-B448	87	87	95	95	94	93	86	90
580-78527-14	PDI-SG-B451	85	80	93	94	93	92	88	87
580-78527-15	PDI-SG-B455	83	79	88	90	86	85	85	84

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-78527-9

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	PCB81L (30-140)	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)
580-78527-16	PDI-SG-B450	86	82	92	93	91	90	89	88
580-78527-17	PDI-SG-B454	83	80	92	92	91	89	87	86
580-78527-18	PDI-SG-B453	78	68	81	81	80	78	74	71
580-78527-19	PDI-SG-B453-D	85	81	93	94	92	90	86	88
580-78527-20	PDI-SG-B452	80	85	92	94	93	90	87	82
580-78527-21	PDI-SG-B457	87	78	93	95	88	90	88	91
580-78527-22	PDI-SG-B459	85	84	94	96	90	97	84	95
580-78527-23	PDI-SG-B460	78	81	86	88	85	84	82	85
580-78527-24	PDI-SG-B461	80	77	87	89	88	89	84	79
580-78527-25	PDI-SG-B461-D	80	75	87	87	87	85	84	81
LCS 140-23078/17-B	Lab Control Sample	38	41	45	45	46	45	42	44
LCS 140-23147/18-B	Lab Control Sample	77	79	88	87	86	84	84	89
LCSD 140-23078/18-B	Lab Control Sample Dup	20 *	18 *	22 *	23 *	22 *	21 *	21 *	24 *
LCSD 140-23147/19-B	Lab Control Sample Dup	79	77	87	88	86	85	82	81
MB 140-23078/16-B	Method Blank	28 *	30	34	33	34	33	30	34
MB 140-23147/17-B	Method Blank	78	80	88	87	89	84	84	84
		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)
580-78527-1	PDI-SG-B434	72 C	72 C156	79	76	77	94	77	100
580-78527-2	PDI-SG-B435	78 C	78 C156	88	85	84	101	83	113
580-78527-3	PDI-SG-B441	82 C	82 C156	85	88	82	89	84	102
580-78527-4	PDI-SG-B442	81 C	81 C156	89	83	84	100	88	112
580-78527-5	PDI-SG-B439	82 C	82 C156	88	88	84	93	81	104
580-78527-6	PDI-SG-B440	68 C	68 C156	78	72	76	86	81	98
580-78527-7	PDI-SG-B445	86 C	86 C156	90	93	86	94	85	105
580-78527-8	PDI-SG-B446	87 C	87 C156	91	91	88	90	84	100
580-78527-9	PDI-SG-B447	76 C	76 C156	86	89	86	94	82	108
580-78527-10	PDI-SG-B449	79 C	79 C156	87	79	87	105	86	115
580-78527-11	PDI-SG-B443	82 C	82 C156	92	84	86	108	93	116
580-78527-12	PDI-SG-B444	75 C	75 C156	84	82	84	94	85	107
580-78527-13	PDI-SG-B448	83 C	83 C156	89	85	87	103	86	115
580-78527-14	PDI-SG-B451	88 C	88 C156	91	91	87	90	80	101
580-78527-15	PDI-SG-B455	81 C	81 C156	85	88	84	89	81	101
580-78527-16	PDI-SG-B450	89 C	89 C156	90	94	90	92	80	107
580-78527-17	PDI-SG-B454	84 C	84 C156	89	92	86	90	85	99
580-78527-18	PDI-SG-B453	67 C	67 C156	77	79	76	80	71	94
580-78527-19	PDI-SG-B453-D	78 C	78 C156	91	91	86	89	85	108
580-78527-20	PDI-SG-B452	83 C	83 C156	85	87	88	101	88	111
580-78527-21	PDI-SG-B457	84 C	84 C156	88	91	90	96	81	108
580-78527-22	PDI-SG-B459	86 C	86 C156	91	92	85	93	83	106
580-78527-23	PDI-SG-B460	83 C	83 C156	87	84	84	89	80	100
580-78527-24	PDI-SG-B461	83 C	83 C156	88	88	81	87	81	95
580-78527-25	PDI-SG-B461-D	83 C	83 C156	87	89	83	87	82	100
LCS 140-23078/17-B	Lab Control Sample	44 C	44 C156	43	43	42	47	39	55
LCS 140-23147/18-B	Lab Control Sample	85 C	85 C156	86	86	85	94	80	98
LCSD 140-23078/18-B	Lab Control Sample Dup	22 C *	22 * C156	22 *	21 *	21 *	23 *	21 *	25 *
LCSD 140-23147/19-B	Lab Control Sample Dup	86 C	86 C156	84	89	86	86	76	98
MB 140-23078/16-B	Method Blank	33 C	33 C156	30	31	30	34	28 *	30

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-78527-9

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)
MB 140-23147/17-B	Method Blank	85 C	85 C156	86	90	87	88	80	100
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)				
580-78527-1	PDI-SG-B434	68	77	84	74				
580-78527-2	PDI-SG-B435	75	82	87	78				
580-78527-3	PDI-SG-B441	72	78	86	72				
580-78527-4	PDI-SG-B442	74	82	94	76				
580-78527-5	PDI-SG-B439	73	84	79	80				
580-78527-6	PDI-SG-B440	68	72	89	71				
580-78527-7	PDI-SG-B445	78	89	89	89				
580-78527-8	PDI-SG-B446	75	82	90	79				
580-78527-9	PDI-SG-B447	73	85	79	82				
580-78527-10	PDI-SG-B449	78	82	96	77				
580-78527-11	PDI-SG-B443	78	84	99	74				
580-78527-12	PDI-SG-B444	73	82	82	76				
580-78527-13	PDI-SG-B448	75	86	92	83				
580-78527-14	PDI-SG-B451	75	86	87	85				
580-78527-15	PDI-SG-B455	73	82	84	79				
580-78527-16	PDI-SG-B450	77	89	86	86				
580-78527-17	PDI-SG-B454	78	86	87	81				
580-78527-18	PDI-SG-B453	64	73	74	66				
580-78527-19	PDI-SG-B453-D	75	84	89	81				
580-78527-20	PDI-SG-B452	77	83	90	76				
580-78527-21	PDI-SG-B457	76	88	88	90				
580-78527-22	PDI-SG-B459	82	93	88	89				
580-78527-23	PDI-SG-B460	72	82	86	78				
580-78527-24	PDI-SG-B461	74	79	83	74				
580-78527-25	PDI-SG-B461-D	72	79	86	75				
LCS 140-23078/17-B	Lab Control Sample	37	41	43	40				
LCS 140-23147/18-B	Lab Control Sample	74	80	77	81				
LCSD 140-23078/18-B	Lab Control Sample Dup	19 *	22 *	21 *	22 *				
LCSD 140-23147/19-B	Lab Control Sample Dup	72	80	81	82				
MB 140-23078/16-B	Method Blank	27 *	31	31	30				
MB 140-23147/17-B	Method Blank	73	83	81	80				

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

TestAmerica Seattle

Isotope Dilution Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-78527-9

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

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