

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 580-79329-7

Client Project/Site: Portland Harbor Pre-Remedial Design

For:

AECOM
1111 Third Ave
Suite 1600
Seattle, Washington 98101

Attn: Amy Dahl

M. Elaine Walker

Authorized for release by:
11/29/2018 1:35:02 PM

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

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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: 580-79329-7

Job ID: 580-79329-7

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-79329-7

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

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

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

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

RECEIPT

Forty-six samples were received on 8/3/2018 1:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 8 coolers at receipt time were 1.2° C, 1.7° C, 2.2° C, 2.3° C, 2.4° C, 3.1° C, 3.9° C and 4.6° C.

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

The following sample was activated by the client on for Atterberg Limits on 8-7-2018: PDI-SC-S178-0to2 (580-79329-17).

The following samples were activated by the client on 9/24/18 for PCBs, PAHs, TOC and both TS methods. PDI-SC-S221-0to2 (580-79329-40), PDI-SC-S221-2to4 (580-79329-41), PDI-SC-S221-2to4 (580-79329-41[MS]), PDI-SC-S221-2to4 (580-79329-41[MSD]), PDI-SC-S221-4to6 (580-79329-42) and PDI-SC-S221-6to8.1 (580-79329-43).

The 1613B Dioxins and Grain Size were omitted from the activation request on 9/24/2018. Per client request, these analyses were added to samples PDI-SC-S221-0to2 (580-79329-40), PDI-SC-S221-2to4 (580-79329-41), PDI-SC-S221-2to4 (580-79329-41[MS]), PDI-SC-S221-2to4 (580-79329-41[MSD]), PDI-SC-S221-4to6 (580-79329-42) and PDI-SC-S221-6to8.1 (580-79329-43) on 11/16/2018. This report contains results for 1613B Grain Size only, performed at TestAmerica Seattle.

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

GRAIN SIZE

Samples PDI-SC-S221-0to2 (580-79329-40), PDI-SC-S221-2to4 (580-79329-41), PDI-SC-S221-4to6 (580-79329-42) and PDI-SC-S221-6to8.1 (580-79329-43) were analyzed for grain size in accordance with ASTM D7928/D6913. The samples were analyzed on 11/16/2018.

Medium Sand exceeded the RPD limit for the duplicate of sample PDI-SC-S221-0to2DU (580-79329-40).

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: 580-79329-7

Qualifiers

Geotechnical

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

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
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

TestAmerica Job ID: 580-79329-7

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S221-0to2

Lab Sample ID: 580-79329-40

Date Collected: 08/03/18 10:15

Matrix: Solid

Date Received: 08/03/18 13:45

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			11/16/18 11:08	1
Coarse Sand	0.0				%			11/16/18 11:08	1
Medium Sand	0.2				%			11/16/18 11:08	1
Fine Sand	7.5				%			11/16/18 11:08	1
Silt	72.6				%			11/16/18 11:08	1
Clay	19.7				%			11/16/18 11:08	1

Client Sample Results

Client: AECOM

TestAmerica Job ID: 580-79329-7

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S221-2to4

Lab Sample ID: 580-79329-41

Date Collected: 08/03/18 10:20

Matrix: Solid

Date Received: 08/03/18 13:45

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			11/16/18 11:08	1
Coarse Sand	0.1				%			11/16/18 11:08	1
Medium Sand	0.1				%			11/16/18 11:08	1
Fine Sand	8.8				%			11/16/18 11:08	1
Silt	71.1				%			11/16/18 11:08	1
Clay	19.9				%			11/16/18 11:08	1

Client Sample Results

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

TestAmerica Job ID: 580-79329-7

Client Sample ID: PDI-SC-S221-4to6

Lab Sample ID: 580-79329-42

Date Collected: 08/03/18 10:25

Matrix: Solid

Date Received: 08/03/18 13:45

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			11/16/18 11:08	1
Coarse Sand	0.0				%			11/16/18 11:08	1
Medium Sand	0.1				%			11/16/18 11:08	1
Fine Sand	14.1				%			11/16/18 11:08	1
Silt	66.5				%			11/16/18 11:08	1
Clay	19.2				%			11/16/18 11:08	1

Client Sample Results

Client: AECOM

TestAmerica Job ID: 580-79329-7

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S221-6to8.1

Lab Sample ID: 580-79329-43

Date Collected: 08/03/18 10:30

Matrix: Solid

Date Received: 08/03/18 13:45

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			11/16/18 11:08	1
Coarse Sand	0.0				%			11/16/18 11:08	1
Medium Sand	0.1				%			11/16/18 11:08	1
Fine Sand	15.6				%			11/16/18 11:08	1
Silt	64.1				%			11/16/18 11:08	1
Clay	20.3				%			11/16/18 11:08	1

QC Sample Results

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

TestAmerica Job ID: 580-79329-7

Method: D7928/D6913 - ASTM D7928/D6913

Lab Sample ID: 580-79329-40 DU

Matrix: Solid

Analysis Batch: 289092

Client Sample ID: PDI-SC-S221-0to2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Gravel	0.0		0.0		%		NC	20
Coarse Sand	0.0		0.0		%		NC	20
Medium Sand	0.2		0.1	F3	%		67	20
Fine Sand	7.5		7.9		%		5	20
Silt	72.6		72.9		%		0.4	20
Clay	19.7		19.1		%		3	20

Lab Chronicle

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

TestAmerica Job ID: 580-79329-7

Client Sample ID: PDI-SC-S221-0to2

Date Collected: 08/03/18 10:15

Date Received: 08/03/18 13:45

Lab Sample ID: 580-79329-40

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	289092	11/16/18 11:08	A1K	TAL SEA

Client Sample ID: PDI-SC-S221-2to4

Date Collected: 08/03/18 10:20

Date Received: 08/03/18 13:45

Lab Sample ID: 580-79329-41

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	289092	11/16/18 11:08	A1K	TAL SEA

Client Sample ID: PDI-SC-S221-4to6

Date Collected: 08/03/18 10:25

Date Received: 08/03/18 13:45

Lab Sample ID: 580-79329-42

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	289092	11/16/18 11:08	A1K	TAL SEA

Client Sample ID: PDI-SC-S221-6to8.1

Date Collected: 08/03/18 10:30

Date Received: 08/03/18 13:45

Lab Sample ID: 580-79329-43

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	289092	11/16/18 11:08	A1K	TAL SEA

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM

TestAmerica Job ID: 580-79329-7

Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79329-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79329-40	PDI-SC-S221-0to2	Solid	08/03/18 10:15	08/03/18 13:45
580-79329-41	PDI-SC-S221-2to4	Solid	08/03/18 10:20	08/03/18 13:45
580-79329-42	PDI-SC-S221-4to6	Solid	08/03/18 10:25	08/03/18 13:45
580-79329-43	PDI-SC-S221-6to8.1	Solid	08/03/18 10:30	08/03/18 13:45

TestAmerica Seattle

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: Subsurface Sediment

Sample Type:

Project Contact: Amy Dahl / Chelsea Cook
Tel: (206) 438-2261 / (206) 438-2010

Analysis Turnaround Time

Calendar (C) or Work Days (W) W

☒ 21 days

☐ Other

Site Contact: Jennifer Ray / Michaela McCoog
Laboratory Contact: Elaine Walker

Date: 8/3/18

Carrier: Courier

COC No: 1

1 of 4 pages



580-79329 Chain of Custody

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 1603	Afterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SC-S144 - 0 to 2	8/1/2018	11:50	SC		ED	4		X	X	X	X		
PDI-SC-S144 - 2 to 4	8/1/2018	11:55	SC		ED	4		X	X	X	X		
PDI-SC-S144 - 4 to 6	8/1/2018	12:00	SC		ED	4		X	X	X	X		
PDI-SC-S144 - 6 to 8	8/1/2018	12:05	SC		ED	4		X	X	X	X		
PDI-SC-S144 - 8 to 10	8/1/2018	12:10	SC		ED	4		X	X	X	X		
PDI-SC-S144 - 10 to 12.1	8/1/2018	12:15	SC		ED	4		X	X	X	X		
PDI-SC-S086 - 0 to 2	8/2/2018	9:20	SC		ED	4		X	X	X	X		
PDI-SC-S086 - 0 to 2D	8/2/2018	9:20	SC		ED	3		X	X	X	X		
PDI-SC-S086 - 2 to 3.3	8/2/2018	9:25	SC		ED	4		X	X	X	X		
PDI-SC-S218 - 0 to 2	8/2/2018	11:20	SC		ED	4		X	X	X	X		
PDI-SC-S218 - 2 to 4.5	8/2/2018	11:25	SC		ED	4		X	X	X	X		
PDI-SC-S218 - 4.5 to 6	8/2/2018	11:30	SC		ED	4		X	X	X	X		

Container Type: WMG=Wide Mouth Glass Jar, P-HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal

☐ Return To Client

☒ Posal By Lab

☒ Archive For 12 Months

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

1.2, 2.3, 4.6, 3.1, 1.7, 2.4, 2.2, 3.9

Relinquished by: <i>[Signature]</i>	Company: AECOM	Date/Time: 8/3/18 13:05	Received by: <i>[Signature]</i>	Company: M.E.	Date/Time: 8/5/18 1305
Relinquished by: <i>[Signature]</i>	Company: M.E.	Date/Time: 8/3/18 1345	Received by: <i>[Signature]</i>	Company: AECOM	Date/Time: 8/5/18 1345
Relinquished by: <i>[Signature]</i>	Company: M.E.	Date/Time: 8/3/18 1345	Received by: <i>[Signature]</i>	Company: AECOM	Date/Time: 8/5/18 1345

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: Subsurface Sediment
Sample Type:

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

Site Contact: Jennifer Ray / Michaela McCoog
Laboratory Contact: Elaine-Walker
Date: 8/3/18
Carrier: Courier
COC No: 1 of 4 pages

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 1603	Afterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SC-S172 - 2 to 4	8/2/2018	17:55	SC		ED	4		X	X	X	X		
PDI-SC-S172 - 2 to 4D	8/2/2018	17:55	SC		ED	4		X	X	X	X		
PDI-SC-S172 - 4 to 6	8/2/2018	18:00	SC		ED	4		X	X	X	X		
PDI-SC-S172 - 6 to 8, 1	8/2/2018	18:05	SC		ED	5		X	X	X	X		
PDI-SC-S178 - 0 to 2	8/2/2018	15:55	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 2 to 3.7	8/2/2018	16:00	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 3.7 to 4.7	8/2/2018	16:05	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 4.7 to 6.7	8/2/2018	16:10	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 6.7 to 8.7	8/2/2018	16:15	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 8.7 to 10.7	8/2/2018	16:20	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 10.7 to 12.7	8/2/2018	16:25	SC		ED	4		X	X	X	X		
PDI-SC-S178 - 12.7 to 14	8/2/2018	16:30	SC		ED	4		X	X	X	X		

Container Type: WMG-Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Container
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
☐ Return To Client ☒ Dispose By Lab ☒ Ship For 12 Months

Relinquished by: <i>RAE</i>	Company: AECOM	Date/Time: 8/3/18 13:05	Received by: <i>Attina</i>	Company: M-E	Date/Time: 8/3/18 13:05
Relinquished by: <i>Heavenly</i>	Company: M-E	Date/Time: 8/3/18 13:45	Received by: <i>FAOK</i>	Company: FAOK	Date/Time: 8/3/18 13:45
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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

SUBSURFACE SEDIMENT									
CHAIN OF CUSTODY									
Client Contact		Project Contact: Amy Dahl / Chelsey Cook		Site Contact: Jennifer Ray / Michaela McCoog		Date: 8/3/18		COC No: 1	
TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		Tel: (206) 438-2261 / (206) 438-2010		Laboratory Contact: Elaine-Walker		Carrier: Courier		3 of 4 pages	
AEFCOM 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		Analysis Turnaround Time Calendar (C) or Work Days (W) W		Archives		Grain size ASTM D7928/D6913		PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 1603	
Portland, OR Project #: 60560335 Study: Subsurface Sediment		21 days		PCDD/Fs 1613B		Afterberg Limits ASTM D4318		Sample Specific Notes:	
Sample Type:		Other		Fraction					
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.			
PDI-SC-S083 - 0 to 1.6	8/1/2018	17:30	SC		ED	4			
PDI-SC-S083 - 1.6 to 3.5	8/1/2018	17:35	SC		ED	4			
PDI-SC-S083 - 3.5 to 5.0	8/1/2018	17:40	SC		ED	4			
PDI-SC-S083 - 5 to 6.6	8/1/2018	17:45	SC		ED	4			
PDI-SC-S032 - 0 to 2	8/1/2018	15:40	SC		ED	4			
PDI-SC-S032 - 2 to 4	8/1/2018	15:45	SC		ED	4			
PDI-SC-S032 - 4 to 6	8/1/2018	15:50	SC		ED	4			
PDI-SC-S032 - 6 to 8	8/1/2018	15:55	SC		ED	4			
PDI-SC-S032 - 8 to 10	8/1/2018	16:00	SC	16:00	ED	6			
PDI-SC-S032 - 10 to 12	8/1/2018	16:05	SC		ED	4			
PDI-SC-S032 - 12 to 14	8/1/2018	16:10	SC		ED	4			
PDI-SC-S172 - 0 to 2	8/2/2018	17:50	SC		ED	4			

Special Instructions/QC Requirements & Comments: Separate reports for each lab			
Relinquished by: <i>AEFCOM</i>	Company: <i>AEFCOM</i>	Date/Time: <i>8/3/18 13:05</i>	Received by: <i>[Signature]</i>
Relinquished by: <i>AEFCOM</i>	Company: <i>M.E.</i>	Date/Time: <i>8/3/18 13:45</i>	Received by: <i>[Signature]</i>
Relinquished by: <i>AEFCOM</i>	Company: <i>M.E.</i>	Date/Time: <i>8/3/18 13:45</i>	Received by: <i>[Signature]</i>

SUBSURFACE 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 Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) W <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other		Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine Walker Date: 8/3/18 Carrier: Courier COC No: 1 of 4 pages						
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Afterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SC-S218 - 6 to 8	8/2/2018	11:35	SC	MS/MSD	ED	7		X	X	X	WQ-PC64 WQ-P44 WQ-DIF WQ-TBC	
PDI-SC-S218 - 8 to 10	8/2/2018	11:40	SC		ED	4		X	X	X		
PDI-SC-S228 - 0 to 2.3	8/3/2018	9:20	SC		ED	4		X	X	X		
PDI-SC-S221 - 0 to 2	8/3/2018	10:15	SC		ED	4		X	X	X		
PDI-SC-S221 - 2 to 4	8/3/2018	10:20	SC	MS/MSD	ED	6		X	X	X		
PDI-SC-S221 - 4 to 6	8/3/2018	10:25	SC		ED	4		X	X	X		
PDI-SC-S221 - 6 to 8.1	8/3/2018	10:30	SC		ED	4		X	X	X		
PDI-SC-S221 - 8.1 to 13.55	8/1/18 13:55		SC		ED	7		X	X	X		
PDI-SC-S221 - 13.55 to 18.0802-14.5	8/1/18 16:45		SC		ED	7		X	X	X		
PDI-SC-S221 - 18.0802-18.0802	8/1/18 09:50		SC		ED	7		X	X	X		
- to -			SC		ED			X	X	X		
- to -			SC		ED			X	X	X		

On hold 8/3/18

↓

Sample Disposal			
<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Jposal By Lab	<input checked="" type="checkbox"/> Ship For 12 Months	
Special Instructions/QC Requirements & Comments: Separate reports for each lab			
Relinquished by: <i>rd</i>	Company: AECOM	Date/Time: 8/2/18 13:05	Received by: <i>Jennifer Ray</i>
Relinquished by: <i>Jennifer Ray</i>	Company: M.E.	Date/Time: 8/3/18 13:45	Received by: <i>APDOK</i>
Relinquished by:	Company:	Date/Time:	Received by:

$IR5 = 0.8/0.8 \text{ w/c.s.}$ $IR5 = 0.1/0.1 \text{ w/c.s.}$
 $IR5 = 1.2/1.2 \text{ w/c.s.}$ $IR5 = 0.4/0.4 \text{ w/c.s.}$

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SUBSURFACE SEDIMENT CHAIN OF CUSTODY																																																																																																																																																																																																																																																																																					
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: Subsurface Sediment Sample Type:		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010				Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine Walker				Date: 8/3/18 Carrier: Courier				COC No: 1 2 of 4 pages																																																																																																																																																																																																																																																																									
Analysis Turnaround Time Calendar (C) or Work Days (W) W <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other _____		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:5%;">Fraction</td> <td style="width:10%;">PCDD/Fs 16138</td> <td style="width:5%;">Archive</td> <td style="width:10%;">Grain size ASTM D928/D9913</td> <td style="width:10%;">PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8770D-SM, 9060, 160.3</td> <td style="width:10%;">Atterberg Limits ASTM D4318</td> <td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																		Fraction	PCDD/Fs 16138	Archive	Grain size ASTM D928/D9913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8770D-SM, 9060, 160.3	Atterberg Limits ASTM D4318																																																																																																																																																																																																																																																														
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PDI-SC-S172 - 2 to 4		8/2/2018	17:55	SC		ED	4																																																																																																																																																																																																																																																																																
PDI-SC-S172 - 2 to 4D		8/2/2018	17:55	SC		ED	3																																																																																																																																																																																																																																																																																
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PDI-SC-S178 - 0 to 2		8/2/2018	15:55	SC		ED	5																																																																																																																																																																																																																																																																																
PDI-SC-S178 - 2 to 3.7		8/2/2018	16:00	SC		ED	4																																																																																																																																																																																																																																																																																
PDI-SC-S178 - 3.7 to 4.7		8/2/2018	16:05	SC		ED	4																																																																																																																																																																																																																																																																																
PDI-SC-S178 - 4.7 to 6.7		8/2/2018	16:10	SC		ED	4																																																																																																																																																																																																																																																																																
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PDI-SC-S178 - 8.7 to 10.7		8/2/2018	16:20	SC		ED	4																																																																																																																																																																																																																																																																																
PDI-SC-S178 - 10.7 to 12.7		8/2/2018	16:25	SC		ED	4																																																																																																																																																																																																																																																																																
PDI-SC-S178 - 12.7 to 14		8/2/2018	16:30	SC		ED	4																																																																																																																																																																																																																																																																																
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 <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input checked="" type="checkbox"/> Archive For 12 Months																																																																																																																																																																																																																																																																															
Special Instructions/QC Requirements & Comments: Separate reports for each lab																																																																																																																																																																																																																																																																																							
Relinquished by:		Company: AECOM		Date/Time: 8/3/18 13:05		Received by:		Company: M-E		Date/Time: 8/3/18 1305																																																																																																																																																																																																																																																																													
Relinquished by:		Company: M-E		Date/Time: 8/3/18 1345		Received by:		Company: T-AROK		Date/Time: 8/3/18 1345																																																																																																																																																																																																																																																																													
Relinquished by:		Company: LARON		Date/Time: 8/3/18 1700		Received by:		Company: SEA TA		Date/Time: 8/4/18 1020																																																																																																																																																																																																																																																																													

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SUBSURFACE SEDIMENT CHAIN OF CUSTODY																												
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: Subsurface Sediment Sample Type:		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) W <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other _____				Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine-Walker Date: 8/3/18 Carrier: Courier COC No: 1 4 of 4 pages																								
		Sample Identification		Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Afterberg Limits ASTM D4318	WQ-PC6A	WQ-PAHs	WQ-DIF	WQ-TOC	Sample Specific Notes:										
		PDI-SC-S218 - 6 to 8		8/2/2018	11:35	SC	MS/MSD	ED	7		x	x	x	x	x															
		PDI-SC-S218 - 8 to 10		8/2/2018	11:40	SC		ED	4		x	x	x	x																
		PDI-SC-S228 - 0 to 2.3		8/3/2018	9:20	SC		ED	4		x	x	x	x																
		PDI-SC-S221 - 0 to 2		8/3/2018	10:15	SC		ED	4		x	x	x	x							On hold to 8/3/18 Per Aecom ↓									
		PDI-SC-S221 - 2 to 4		8/3/2018	10:20	SC	MS/MSD	ED	6		x	x	x	x																
		PDI-SC-S221 - 4 to 6		8/3/2018	10:25	SC		ED	4		x	x	x	x																
		PDI-SC-S221 - 6 to 8.1		8/3/2018	10:30	SC		ED	4		x	x	x	x																
		PDI-RB-SS - 180801		8/1/18 13:55		SC		ED	7		x	x	x	x		x	x	x	x											
		PDI-RB-SS - 180802		8/1/18 16:45		SC		ED	7		x	x	x	x		x	x	x	x											
		PDI-RB-SS - 180802		8/2/18 09:50		SC		ED	7		x	x	x	x		x	x	x	x											
		to				SC		ED			x	x	x	x																
		to				SC		ED			x	x	x	x																
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Color Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)										AG	AG	WMG	WMG	AG																
Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 12 Months																														
Special Instructions/QC Requirements & Comments: Separate reports for each lab																														
Relinquished by: [Signature]		Company: AECOM		Date/Time: 8/2/18 13:05		Received by: [Signature]		Company: M.E.		Date/Time: 8/3/18 1345		Received by: [Signature]		Company: TAPOR		Date/Time: 8/3/18 1345		Received by: [Signature]		Company: SRA TA		Date/Time: 8/14/18 1020								
Relinquished by: [Signature]		Company: M.E.		Date/Time: 8/3/18 1345		Received by: [Signature]		Company: TAPOR		Date/Time: 8/3/18 1345		Received by: [Signature]		Company: SRA TA		Date/Time: 8/14/18 1020														
Relinquished by: [Signature]		Company: TAPOR		Date/Time: 8/3/18 1700		Received by: [Signature]		Company: SRA TA		Date/Time: 8/14/18 1020																				

Revised

SUBSURFACE SEDIMENT									
CHAIN OF CUSTODY									
Test America-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 PH: 253-922-2310 Fax: 253-922-5047		Client Contact		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time		Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine Walker		Date: 8/3/18 Carrier: Courier	
AECOM 11111 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		Calendar (C) or Work Days (W) W		21 days		PCDD/Fs 1613B		Carrier: Courier	
Portland, OR Project #: 60566335 Study: Subsurface Sediment		Sample Type:		Other		Grain size ASTM D7928/D6913		580-79329 Chain of Custody	
Sample Identification		Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Sample Specific Notes:	
PDI-SC-S144 - 0 to 2		8/1/2018	11:50	SC		ED	4		
PDI-SC-S144 - 2 to 4		8/1/2018	11:55	SC		ED	4		
PDI-SC-S144 - 4 to 6		8/1/2018	12:00	SC		ED	4		
PDI-SC-S144 - 6 to 8		8/1/2018	12:05	SC		ED	4		
PDI-SC-S144 - 8 to 10		8/1/2018	12:10	SC		ED	4		
PDI-SC-S144 - 10 to 12.1		8/1/2018	12:15	SC		ED	4		
PDI-SC-S086 - 0 to 2		8/2/2018	9:20	SC		ED	4		
PDI-SC-S086 - 0 to 2D		8/2/2018	9:20	SC		ED	3		
PDI-SC-S086 - 2 to 3.3		8/2/2018	9:25	SC		ED	4		
PDI-SC-S218 - 0 to 2		8/2/2018	11:20	SC		ED	4		
PDI-SC-S218 - 2 to 4.5		8/2/2018	11:25	SC		ED	4		
PDI-SC-S218 - 4.5 to 6		8/2/2018	11:30	SC		ED	4		
Container Type: WING-Wide Mouth Glass Jar, P-HDPE, PP-Polypropylene, AG-amber glass, G-glass, RC-Resin Container Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)									
Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input type="checkbox"/> Ship For 12 Months									
Special Instructions/QC Requirements & Comments: Separate reports for each lab									

Relinquished by:		Company:	Date/Time:	Received by:	Company:	Date/Time:
[Signature]		ACOR	8/3/18 13:05	[Signature] M.E.		
[Signature]		M.E.	8/3/18 1345	[Signature] TAPOL		
[Signature]		TAPOL	8/3/18 1700	[Signature] SEA TA		

1.2, 2.3, 4.6, 3.1, 1.7, 2.4, 2.2, 3.9

IR5 = 0.8/0.8 w/c.s. IR5 = 0.1/0.1 w/c.s.

IR5 = 1.2/1.2 w/c.s. IR5 = 0.4/0.4 w/c.s.

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11

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: Subsurface Sediment

Sample Type:

Project Contact: Amy Dahl / Chelsey Cook

Tel: (206) 438-2261 / (206) 438-2010

Analysis Turnaround Time

Calendar (C) or Work Days (W) - W

21 days

Other

SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

Date: 8/3/18

Carrier: Courier

COC No: 1

2 of 4 pages

Site Contact: Jennifer Ray / Michaela McCaig

Laboratory Contact: Elaine Walker

Atterberg Limits ASTM D4318

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

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PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

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Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

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PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

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PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

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PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-STM, 9060, 1603

Grain size ASTM D7928/D6913

Archive

PCDD/Fs 1613B

Pyrocarbon

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

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

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

Sample Disposal

Return To Client

Postal By Lab

Archive For 12 Months

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

Relinquished by:

Company: AECOM

Date/Time: 8/3/18 13:05

Relinquished by:

Company: M-E

Date/Time: 8/3/18 13:05

Relinquished by:

Company: TAPOR

Date/Time: 8/3/18 17:00

Relinquished by:

Company: SEA-TA

Date/Time: 8/4/18 10:20

Company: M-E

Date/Time: 8/3/18 13:05

Company: TAPOR

Date/Time: 8/3/18 13:05

Company: SEA-TA

Date/Time: 8/4/18 10:20

Per AECOM 8/7/18 (K)

TestAmerica-Seattle
5755-8th-Street-East
Tacoma, WA 98404-1317
Ph: 253-922-2310 Fax: 253-922-5047

SUBSURFACE SEDIMENT CHAIN OF CUSTODY

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: Subsurface Sediment
Sample Type:

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

Site Contact: Jennifer Ray / Michaela McCoog
Date: 8/3/18
Carrier: Courier
COC No: 1
3 of 4 pages

Laboratory Contact: Elaine Walker
Atterberg Limits ASTM D4318
PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 1603
Grain size ASTM D7928/D6913
Archive
PCDD/Fs 1613B
Kraton

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Sample Specific Notes:
PDI-SC-S083 - 0 to 1.6	8/1/2018	17:30	SC		ED	4	
PDI-SC-S083 - 1.6 to 3.5	8/1/2018	17:35	SC		ED	4	
PDI-SC-S083 - 3.5 to 5.0	8/1/2018	17:40	SC		ED	4	
PDI-SC-S083 - 5 to 6.6	8/1/2018	17:45	SC		ED	4	
PDI-SC-S032 - 0 to 2	8/1/2018	15:40	SC		ED	4	
PDI-SC-S032 - 2 to 4	8/1/2018	15:45	SC		ED	4	
PDI-SC-S032 - 4 to 6	8/1/2018	15:50	SC		ED	4	
PDI-SC-S032 - 6 to 8	8/1/2018	15:55	SC		ED	4	
PDI-SC-S032 - 8 to 10	8/1/2018	16:00	SC	15:45:00	ED	4	
PDI-SC-S032 - 10 to 12	8/1/2018	16:05	SC		ED	4	
PDI-SC-S032 - 12 to 14	8/1/2018	16:10	SC		ED	4	
PDI-SC-S172 - 0 to 2	8/2/2018	17:50	SC		ED	4	

Container Type: WMG-Wide Mouth Glass Jar, P-HDPE, PP-Polypropylene, AG-amber glass, G-glass, RC-Resin Collar
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

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

Sample Disposal
☐ Return To Client
☒ Dispose By Lab
☐ Ship For 12 Months

Relinquished by: [Signature] Company: AECOM Date/Time: 8/2/18 13:05
Relinquished by: [Signature] Company: M-E Date/Time: 8/3/18 1345
Relinquished by: [Signature] Company: AK-RAL Date/Time: 8/3/18 1700

Received by: [Signature] Company: M-E Date/Time: 8/3/18 1305
Received by: [Signature] Company: AK-RAL Date/Time: 8/3/18 1305
Received by: [Signature] Company: SEA-TR Date/Time: 8/14/18 1020

Received by: [Signature] Company: M-E Date/Time: 8/3/18 1305
Received by: [Signature] Company: AK-RAL Date/Time: 8/3/18 1305
Received by: [Signature] Company: SEA-TR Date/Time: 8/14/18 1020

Received by: [Signature] Company: M-E Date/Time: 8/3/18 1305
Received by: [Signature] Company: AK-RAL Date/Time: 8/3/18 1305
Received by: [Signature] Company: SEA-TR Date/Time: 8/14/18 1020

CHAIN OF CUSTODY

Special Instructions/QC Requirements & Comments: Separate reports for each labX chive For 12 Months

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-79329-7

Login Number: 79329

List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

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