

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: 580-77716-1

Client Project/Site: Portland Harbor Pre-Remedial Design

For:

AECOM
1111 Third Ave
Suite 1600
Seattle, Washington 98101

Attn: Karen Mixon

M. Elaine Walker

Authorized for release by:
6/25/2018 3:16:41 PM

Elaine Walker, Project Manager II
(253)248-4972
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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: 580-77716-1

Job ID: 580-77716-1

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-77716-1

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

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

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

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

RECEIPT

Five samples were received on 6/1/2018 1:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

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

This report contains results of all analyses performed by TestAmerica Seattle.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): PDI-SG-S111 (580-77716-2). The container labels list PDI-SG-S111 while the COC lists PDI-SG-S011. The client was contacted, and the lab was instructed to use the sample ID on the container.

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.

TOTAL ORGANIC CARBON

Samples PDI-SG-S214 (580-77716-1), PDI-SG-S111 (580-77716-2), PDI-SG-S102 (580-77716-3), PDI-SG-S110 (580-77716-4) and PDI-SG-S118 (580-77716-5) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 06/11/2018.

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

GRAIN SIZE

Samples PDI-SG-S214 (580-77716-1), PDI-SG-S111 (580-77716-2), PDI-SG-S102 (580-77716-3), PDI-SG-S110 (580-77716-4) and PDI-SG-S118 (580-77716-5) were analyzed for grain size in accordance with D422. The samples were analyzed on 06/17/2018.

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

PERCENT SOLIDS

Samples PDI-SG-S214 (580-77716-1), PDI-SG-S111 (580-77716-2), PDI-SG-S102 (580-77716-3), PDI-SG-S110 (580-77716-4) and PDI-SG-S118 (580-77716-5) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 06/05/2018.

Case Narrative

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

TestAmerica Job ID: 580-77716-1

Job ID: 580-77716-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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

TOTAL SOLIDS @ 70C

Samples PDI-SG-S214 (580-77716-1), PDI-SG-S111 (580-77716-2), PDI-SG-S102 (580-77716-3), PDI-SG-S110 (580-77716-4) and PDI-SG-S118 (580-77716-5) were analyzed for Total Solids @ 70C. The samples were analyzed on 06/22/2018.

No 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: 580-77716-1

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
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S214

Date Collected: 05/30/18 14:45

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-1

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	7800		2000	44	mg/Kg			06/11/18 18:36	1
Total Solids	64.2		0.1	0.1	%			06/05/18 09:27	1
Total Solids @ 70°C	64		0.10	0.10	%			06/22/18 18:02	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	12.8				%			06/17/18 10:58	1
Coarse Sand	0.1				%			06/17/18 10:58	1
Fine Sand	24.9				%			06/17/18 10:58	1
Gravel	0.0				%			06/17/18 10:58	1
Medium Sand	1.1				%			06/17/18 10:58	1
Silt	61.2				%			06/17/18 10:58	1

Client Sample Results

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S111

Date Collected: 05/30/18 12:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-2

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	19000		2000	44	mg/Kg			06/11/18 18:41	1
Total Solids	60.8		0.1	0.1	%			06/05/18 09:27	1
Total Solids @ 70°C	60		0.10	0.10	%			06/22/18 18:02	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	3.5				%			06/17/18 10:58	1
Coarse Sand	0.8				%			06/17/18 10:58	1
Fine Sand	70.5				%			06/17/18 10:58	1
Gravel	0.8				%			06/17/18 10:58	1
Medium Sand	6.5				%			06/17/18 10:58	1
Silt	18.0				%			06/17/18 10:58	1

Client Sample Results

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S102

Date Collected: 05/30/18 11:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-3

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	32000		2000	44	mg/Kg			06/11/18 18:46	1
Total Solids	41.3		0.1	0.1	%			06/05/18 09:27	1
Total Solids @ 70°C	41		0.10	0.10	%			06/22/18 18:02	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	12.2				%			06/17/18 10:58	1
Coarse Sand	0.0				%			06/17/18 10:58	1
Fine Sand	21.1				%			06/17/18 10:58	1
Gravel	0.0				%			06/17/18 10:58	1
Medium Sand	0.3				%			06/17/18 10:58	1
Silt	66.3				%			06/17/18 10:58	1

Client Sample Results

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S110

Date Collected: 05/31/18 12:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-4

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	2200		2000	44	mg/Kg			06/11/18 18:52	1
Total Solids	72.2		0.1	0.1	%			06/05/18 09:27	1
Total Solids @ 70°C	74		0.10	0.10	%			06/22/18 18:02	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	0.8				%			06/17/18 10:58	1
Coarse Sand	1.5				%			06/17/18 10:58	1
Fine Sand	44.3				%			06/17/18 10:58	1
Gravel	3.8				%			06/17/18 10:58	1
Medium Sand	45.9				%			06/17/18 10:58	1
Silt	3.8				%			06/17/18 10:58	1

Client Sample Results

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S118

Date Collected: 05/31/18 16:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-5

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	23000		2000	44	mg/Kg			06/11/18 18:56	1
Total Solids	45.0		0.1	0.1	%			06/05/18 09:27	1
Total Solids @ 70°C	44		0.10	0.10	%			06/22/18 18:02	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	12.5				%			06/17/18 10:58	1
Coarse Sand	0.1				%			06/17/18 10:58	1
Fine Sand	25.5				%			06/17/18 10:58	1
Gravel	0.0				%			06/17/18 10:58	1
Medium Sand	0.6				%			06/17/18 10:58	1
Silt	61.3				%			06/17/18 10:58	1

QC Sample Results

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

TestAmerica Job ID: 580-77716-1

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-275999/3

Matrix: Solid

Analysis Batch: 275999

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	44	mg/Kg	-		06/11/18 17:50	1

Lab Sample ID: LCS 580-275999/4

Matrix: Solid

Analysis Batch: 275999

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	4620	6010		mg/Kg	-	130	68 - 149

Lab Sample ID: LCSD 580-275999/5

Matrix: Solid

Analysis Batch: 275999

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	4620	6760		mg/Kg	-	146	68 - 149	12	32

Lab Chronicle

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S214

Date Collected: 05/30/18 14:45

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	275999	06/11/18 18:36	Z1T	TAL SEA
Total/NA	Analysis	D 2216		1	275380	06/05/18 09:27	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	277138	06/22/18 18:02	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	276515	06/17/18 10:58	DB	TAL SEA

Client Sample ID: PDI-SG-S111

Date Collected: 05/30/18 12:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	275999	06/11/18 18:41	Z1T	TAL SEA
Total/NA	Analysis	D 2216		1	275380	06/05/18 09:27	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	277138	06/22/18 18:02	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	276515	06/17/18 10:58	DB	TAL SEA

Client Sample ID: PDI-SG-S102

Date Collected: 05/30/18 11:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	275999	06/11/18 18:46	Z1T	TAL SEA
Total/NA	Analysis	D 2216		1	275380	06/05/18 09:27	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	277138	06/22/18 18:02	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	276515	06/17/18 10:58	DB	TAL SEA

Client Sample ID: PDI-SG-S110

Date Collected: 05/31/18 12:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	275999	06/11/18 18:52	Z1T	TAL SEA
Total/NA	Analysis	D 2216		1	275380	06/05/18 09:27	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	277138	06/22/18 18:02	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	276515	06/17/18 10:58	DB	TAL SEA

Client Sample ID: PDI-SG-S118

Date Collected: 05/31/18 16:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	275999	06/11/18 18:56	Z1T	TAL SEA

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77716-1

Client Sample ID: PDI-SG-S118

Date Collected: 05/31/18 16:00

Date Received: 06/01/18 13:05

Lab Sample ID: 580-77716-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	275380	06/05/18 09:27	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	277138	06/22/18 18:02	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	276515	06/17/18 10:58	DB	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: 580-77716-1

Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	10-31-18
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19


Sample Summary


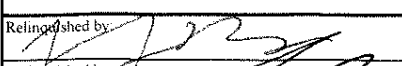
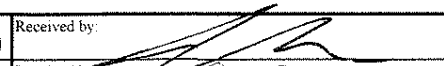



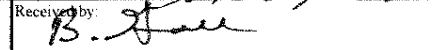
Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-77716-1	PDI-SG-S214	Solid	05/30/18 14:45	06/01/18 13:05
580-77716-2	PDI-SG-S111	Solid	05/30/18 12:00	06/01/18 13:05
580-77716-3	PDI-SG-S102	Solid	05/30/18 11:00	06/01/18 13:05
580-77716-4	PDI-SG-S110	Solid	05/31/18 12:00	06/01/18 13:05
580-77716-5	PDI-SG-S118	Solid	05/31/18 16:00	06/01/18 13:05

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 Laboratory Contact: Elaine Walker											
Client Contact 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1-(866) 495-5288		Analysis Turnaround Time Calendar (C) or Work Days (W) <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other		Carrier: Courier 6/1/2018 COC No. 2 of 1 page(s)											
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Surface Sediment -SMA		Total organic carbon, Total solids 9060 Grain size ASTM D728/D6913 PCDD/Fs 1613B PCB Congeners 1668A		WQ - TPH Diesel NWTPH-Dx WQ - Metals, Mercury 6020B, 7470 WQ - Total Organic Carbon SMS310B											
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	PCB Congeners 1668A	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SMS310B	Sample Specific Notes:
PDI-SG-S214	5/30/2018	14:45	SS		JH	5		X	X						
PDI-SG-S044	5/30/2018	12:00	SS		JH	5		X	X						
PDI-SG-S102	5/30/2018	11:00	SS		JH	5		X	X						
PDI-SG-S110	5/31/2018	12:00	SS		AM	5		X	X						
PDI-SG-S118	5/31/2018	16:00	SS		MM	5		X	X						
<div style="text-align: center;">  580-77716 Chain of Custody </div>															
Container Type: WNG=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: Separate reports for each lab SMA Study samples - log in separately from SS Study samples.															
Relinquished by: [Signature]		Company: AECOM		Date/Time: 6/1/18 1130		Received by: [Signature]		Company: M.E.		Date/Time: 6-1-18 1130					
Relinquished by: [Signature]		Company: M.E.		Date/Time: 6/1/18 1305		Received by: [Signature]		Company: TAPOR		Date/Time: 6/1/18 1305					
Relinquished by: [Signature]		Company: TAPOR		Date/Time: 6/1/18 1700		Received by: [Signature]		Company:		Date/Time:					

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SURFACE 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: Surface Sediment -SMA		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other _____				Site Contact: Jennifer Ray Laboratory Contact: Elaine-Walker Carrier: Courier 6/1/2018 COC No: 2 1 of 1 page(s)													
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NW-TPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SMS10B	Sample Specific Notes:	
PDI-SG-S214	5/30/2018	14:45	SS		JH	5		x	x	x	x	x							
* PDI-SG-S044	5/30/2018	12:00	SS		JH	5		x	x	x	x	x							
PDI-SG-S102	5/30/2018	11:00	SS		JH	5		x	x	x	x	x							
PDI-SG-S110	5/31/2018	12:00	SS		AM	5		x	x	x	x	x							
PDI-SG-S118	5/31/2018	16:00	SS		MM	5		x	x	x	x	x							
 580-77716 Chain of Custody																			
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)																			
Sample Disposal <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 SMA Study samples - log in separately from SS Study samples. <div style="text-align: right;">1.4</div>																			
Relinquished by: 	Company: AECOM	Date/Time: 6/1/18 1130	Received by: 					Company: M.E.					Date/Time: 6-1-18 / 1130						
Relinquished by: 	Company: M.E.	Date/Time: 6/1/18 1305	Received by: 					Company: TAPOR					Date/Time: 6/1/18 1305						
Relinquished by: 	Company: TAPOR	Date/Time: 6/1/18 1700	Received by: 					Company: SEA TR					Date/Time: 6/2/18 1000						

Client: AECOM

Job Number: 580-77716-1

Login Number: 77716

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.	False	IDs on containers do not match the COC. Logged in per containers
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	