

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: 580-79672-3

Client Project/Site: Portland Harbor Pre-Remedial Design

For:

AECOM 1111 Third Ave Suite 1600 Seattle, Washington 98101

Attn: Amy Dahl

M. Elains Walker

Authorized for release by: 9/11/2018 6:31:42 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.

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79672-3

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Case Narrative

Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-79672-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-79672-3

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

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

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

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

RECEIPT

The samples were received on 8/17/2018 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 8 coolers at receipt time were 1.3° C, 1.7° C, 1.9° C, 2.5° C, 3.1° C, 3.6° C, 4.0° C and 4.7° C.

The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): PDI-SC-S131-2to4 (580-79672-15), PDI-SC-S263-0to2 (580-79672-28), PDI-SC-S157-0to2 (580-79672-38) and PDI-SC-S053-0to2 (580-79672-48)

This report contains results for Atterberg Limits, performed by TestAmerica Burlington.

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.

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS

Samples PDI-SC-S131-2to4 (580-79672-15), PDI-SC-S232-0to2 (580-79672-25), PDI-SC-S263-0to2 (580-79672-28), PDI-SC-S157-0to2 (580-79672-38) and PDI-SC-S053-0to2 (580-79672-48) were analyzed for Liquid Limit, Plastic Limit and Plasticity Index of Soils in accordance with ASTM D4318. The samples were analyzed on 08/23/2018.

The following sample is not amenable to Liquid Limits, Plastic Limits, and Plasticity Index determination due to the physical properties of the sample: PDI-SC-S263-0to2 (580-79672-28). Values of zero, zero, and NP have been reported respectively for each determination.

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

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Definitions/Glossary

Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Glossary

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

TestAmerica Seattle

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Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S131-2to4 Lab Sample ID: 580-79672-15

Date Collected: 08/16/18 08:55 Matrix: Solid

Date Received: 08/17/18 15:30

Method: D4318 - Liquid Limit,	Plastic Lim	it and Plasti	city Index	of Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	79				NONE			08/23/18 15:22	1
Plastic Limit	42				NONE			08/23/18 15:22	1
Plasticity Index	37				NONE			08/23/18 15:22	1

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Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S232-0to2 Lab Sample ID: 580-79672-25

Date Collected: 08/16/18 15:10 Matrix: Solid

Date Received: 08/17/18 15:30

Method: D4318 - Liquid Lir	nit, Plastic Lim	it and Plastic	city Index	of Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	53				NONE			08/23/18 15:22	1
Plastic Limit	44				NONE			08/23/18 15:22	1
Plasticity Index	9				NONE			08/23/18 15:22	1

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Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S263-0to2 Lab Sample ID: 580-79672-28

Date Collected: 08/16/18 16:10 Matrix: Solid

Date Received: 08/17/18 15:30

Method: D4318 - Liquid Limit, I	Plastic Limit an	d Plasticity Index	of Soils					
Analyte	Result Qual	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	0			NONE	_		08/23/18 15:22	1
Plastic Limit	0			NONE			08/23/18 15:22	1
Plasticity Index	NP			NONE			08/23/18 15:22	1

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Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S157-0to2 Lab Sample ID: 580-79672-38

Date Collected: 08/17/18 10:10 Matrix: Solid

Date Received: 08/17/18 15:30

Method: D4318 - Liquid Limit, I	Plastic Lim	it and Plasti	city Index o	f Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	76				NONE			08/23/18 15:22	1
Plastic Limit	44				NONE			08/23/18 15:22	1
Plasticity Index	32				NONE			08/23/18 15:22	1

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Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S053-0to2 Lab Sample ID: 580-79672-48

Date Collected: 08/16/18 13:00 Matrix: Solid

Date Received: 08/17/18 15:30

Method: D4318 - Liquid Limit,	Plastic Lim	it and Plasti	city Index o	f Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	52				NONE			08/23/18 15:22	1
Plastic Limit	39				NONE			08/23/18 15:22	1
Plasticity Index	13				NONE			08/23/18 15:22	1

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Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 580-79672-15

Lab Sample ID: 580-79672-25

Lab Sample ID: 580-79672-28

Lab Sample ID: 580-79672-38

Lab Sample ID: 580-79672-48

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S131-2to4

Date Collected: 08/16/18 08:55

Date Received: 08/17/18 15:30

Batch Dilution Batch Batch **Prepared** Method Factor Number or Analyzed **Prep Type** Type Run **Analyst** Lab TAL BUR Total/NA Analysis D4318 133247 08/23/18 15:22 MAP

Client Sample ID: PDI-SC-S232-0to2

Date Collected: 08/16/18 15:10

Date Received: 08/17/18 15:30

Dilution Batch Batch Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA D4318 133247 08/23/18 15:22 MAP TAL BUR Analysis

Client Sample ID: PDI-SC-S263-0to2

Date Collected: 08/16/18 16:10

Date Received: 08/17/18 15:30

Dilution Batch Batch Batch **Prepared** Method Number or Analyzed **Prep Type** Type Run **Factor** Analyst Lab Total/NA Analysis D4318 133247 08/23/18 15:22 MAP TAL BUR

Client Sample ID: PDI-SC-S157-0to2

Date Collected: 08/17/18 10:10

Date Received: 08/17/18 15:30

Batch Batch Dilution Batch **Prepared** Method Factor Number or Analyzed **Prep Type** Type Run Analyst Lab D4318 08/23/18 15:22 MAP TAL BUR Total/NA Analysis 133247

Client Sample ID: PDI-SC-S053-0to2

Date Collected: 08/16/18 13:00

Date Received: 08/17/18 15:30

Batch Dilution Batch Batch Prepared or Analyzed Method **Factor** Number Prep Type Type Run Analyst Lab Total/NA Analysis D4318 133247 08/23/18 15:22 MAP TAI BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: AECOM TestAmerica Job ID: 580-79672-3

Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
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 Burlington

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
ANAB	DoD ELAP	 -	L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-18
New Hampshire	NELAP	1	2006	12-18-18
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-18
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-18
Virginia	NELAP	3	460209	12-14-18

TestAmerica Seattle

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Sample Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

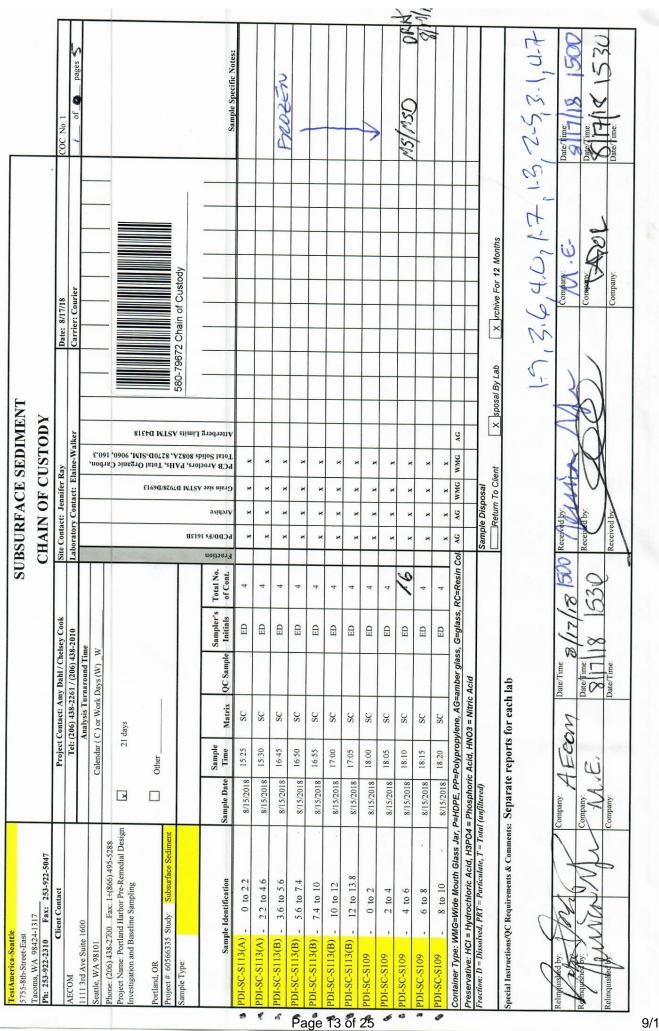
TestAmerica Job ID: 580-79672-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79672-15	PDI-SC-S131-2to4	Solid	08/16/18 08:55	08/17/18 15:30
580-79672-25	PDI-SC-S232-0to2	Solid	08/16/18 15:10	08/17/18 15:30
580-79672-28	PDI-SC-S263-0to2	Solid	08/16/18 16:10	08/17/18 15:30
580-79672-38	PDI-SC-S157-0to2	Solid	08/17/18 10:10	08/17/18 15:30
580-79672-48	PDI-SC-S053-0to2	Solid	08/16/18 13:00	08/17/18 15:30

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Page 16 of 25

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9/11/2018

COC No: 1

of pages

Sample Specific Notes:

PROZEN

DI-SC-S109	6 to 8	-	8/15/2018	18:15	SC		ED	4		x	x	x	x											,	8/	11/8
PDI-SC-S109	8 to 10		8/15/2018	18:20	SC		ED	4		x	x	x	x			T										
ontainer Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col													WMG	AG]
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid																										
raction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)												oosal					٢									
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SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

Laboratory Contact: Elaine-Walker

PCB Arectors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3

Atterberg Limits ASTM D4318

Date: 8/17/18

Carrier: Courier

Site Contact: Jennifer Ray

TestAmerica-Seattle

5755-8th-Street-East Tacoma, WA 98424-1317

Ph: 253-922-2310

Seattle, WA 98101

Portland, OR

Sample Type

▶ PDI-SC-S113(A)

PDI-SC-S109

PDI-SC-S109

PDI-SC-S109

▼ PDI-SC-S113(A) _ 2.2 to 4.6

PDI-SC-S113(B) _ 3.6 to 5.6

PDI-SC-S113(B) - 5.6 to 7.4

PDI-SC-S113(B) 7.4 to 10

PDI-SC-S113(B) _ 10 to 12

PDI-SC-S113(B) _ 12 to 13.8

1111 3rd Ave Suite 1600

AECOM

Fax: 253-922-5047

Project Contact: Amy Dahl / Chelsey Cook

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

Analysis Turnaround Time

QC Sample

Sampler's

Initials

ED

ED

ED

ED

ED

ED

ED

ED

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Total No.

of Cont.

4

4

4

4

4

4

4

4

16

Calendar (C) or Work Days (W) _W_

Matrix

SC

SC

SC

SC

SC

SC

SC

SC

SC

21 days

Other

Sample

Time

15:25

15.30

16:45

16:50

16:55

17:00

17:05

18:00

18:05

18:10

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Sample Date

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

8/15/2018

Client Contact

Phone: (206) 438-2700 Fax: 1+(866) 495-5288

Investigation and Baseline Sampling

Project Name: Portland Harbor Pre-Remedial Design

Project #: 60566335 Study: Subsurface Sediment

Sample Identification

0 to 2.2

0 to 2

2 to 4

4 to 6

TestAmerica-Seattle 5755-8th-Street-East		············				St	JBS	SUF	RFA	CE	SED!	IME	NT	· · · · · · · · · · · · · · · · · · ·													
Tacoma, WA 98424-1317											UST																
Ph: 253-922-2310 Fax: 253-922-5047 Client Contact		Duniani	C	D. EL / Cl								OD.	1				24.54							200			
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Investigation and Baseline Sampling			54,5								Orga SIM, 9	<u>*</u>									ļ			I			
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Project #: 60566335 Study: Subsurface Sediment							_	l		.62G	7 A.H.	s AS												1			
Sample Type:								1613B		ASEM D7928/D69	ds 808	Limit												ı			
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No.	Fraction	PCDD/Fs 1	Archive	Grain size	PCB Aros Total Soli	Atterberg Limits												Sample !	Cnacific:	Votes:	
PDI-SC-\$109 - 10 to 11.3	8/15/2018	18:25	SC		ED	4	oratas	Ţ	x	x	x							//=/==/= /			 			эмири.	perme.	10003	
PDI-SC-S131 0 to 2	8/16/2018	8:50	SC		ED	4		<u> </u>	x	x	x	ļ											***************************************				
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PDI-SC-S131 - 4 to 6	8/16/2018	9:00	SC		ED	4		x	x	x	х																
PDI-SC-S131 _ 6 to 8	8/16/2018	9:05	SC		ED	4		x	x	х	x													~~~~~			
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PDI-SC-S256 - 6 to 8.7	8/16/2018	10:40	SC		ED	4		x	х	х	x															·	
PDI-SC-S256 - 8.7 to 9.7	8/16/2018	10 45	SC		ED	4		x	х	X	х																
PDI-SC-S256 - 9.7 to 10.7	8/16/2018	10:50	sc	·	ED	4	Ш	x	х	X	x																
Container Type: WMG=Wide Mouth Glass Jar, I					s, G≖glass,	RC=Resin	Col	AG	AG	WMG	WMG	AG								~~~~							
Preservative: HCl = Hydrochloric Acid, H3PO4 Traction: D = Dissolved, PRT = Particulate, T = Total		c Acid, Hi	VO3 = Nitric	Acid			_																				
raction: D = Dissonveu, FK1 = Particulate, 1 = 10tal									le Disp Return		inné	Г.	7	al By L		Г	٦		12 M								
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Seattle, WA 98101		Calendar (C) or Work	Days (W) _V	V						bon 0.3									Ì	İ						
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design	x										ic Car 360, 16																
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Portland, OR		Other								D691	Fota 70D	Ä					-	ļ					ĺ	İ			
Project #: 60566335 Study: Subsurface Sediment	1	W-35-AV	~~~~					ŀ	İ	D7928/D6913	Hs.	ASTM															
Sample Type:								1613B		ASTM D	lors, P.A.	Limits															
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No.	Fraction	PCDB/Fs 1	Archive	Grain size	PCB Arnelors, PAHs, Total Organic Carbon Total Solids 8082A, 8270D-SIM, 9060, 160.3	Afterberg Limits												Sam	iple Speci	fic Notes	•
PDI-SC-S232 A _ 0 to 2	8/16/2018	15.10	SC		ED	5	200,0	x	x	x	x	l x							-					O.M.	pic opec		
PDI-SC-S232 - 2 to 4	8/16/2018	15:15	SC	MS/MSD	ED	6		х	х	X	x	<u> </u>															***************************************
PDI-SC-S232 - 4 to 6.2	8/16/2018	15:20	SC		ED	4		х	x	x	x		<u> </u>													·	***************************************
PDI-SC-S263 \\\ _ 0 to 2	8/16/2018	16:10	SC		ED	5		x	x	x	х	x															***************************************
PDI-SC-S263 2 to 3.8	8/16/2018	16:15	SC		ED	4		х	x	x	x																***************************************
PDI-SC-S263 - 3.8 to 5.9	8/16/2018	16:20	SC		ED	4		x	x	x	x																1
PDI-SC-S108 🚊 0 to 1.9	8/16/2018	18:15	SC		ED	4		X	x	x	x																
PDI-SC-S108 A 1.9 to 3	8/16/2018	18:20	SC		ED	4		x	x	x	X																
PDI-SC-S108 _ 3 to 4.7	8/16/2018	18:25	SC		ED	4	Ш	x	x	x	x																
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Container Type: WMG=Wide Mouth Glass Jar,					s, G=glass	, RC=Resin	Col	AG	AG	WMG	WMG	AG													~~~~~~		
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Traction. D = Inssorvez, FRT = Farticulate, F = Total	и (инушеген)						ı			pusai n To Ci	ient		(spo	sal By L	ab		rchi	ve For	12 M	onths							
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Facoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047							CF	IAI	N O	F C	UST	OD'	Y												
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Sample Identification	Sample Date	Time	Matrix	QC Sample		of Cont.	Įį.	PCDB/Fs	Archive	Grain size	PCB /	Atte	WQ-PCBA	WQ-PAHs	WQ-D/F	WQ-TOC						Sa	mple Speci	ific Notes	:
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PDI-SC-S157	8/17/2018	10:10	SC		ED	5		x	x	x	x	x													
PDI-SC-\$157. (1) _ 2 to 3.7	8/17/2018	10:15	SC		ED	4		X	x	x	x														
PDI-SC-S157 2 3.7 to 6	8/17/2018	المكارية	SC		ED	4		x	x	x	х														
PDI-SC-S157 2 6 to 8	8/17/2018	10:25	SC	115/19	ED	6		x	x	<u>x</u>	x														
PDI-SC-S157 8 to 10	8/17/2018	10:30	SC		ED	4		x	x	x	x														
PDI-SC-S157 12 10 to 12.4	8/17/2018	10:35	SC	*******************************	ED	4		X	x	x	x														····
PDI-SC-S157 (12.4 to 14	8/17/2018	10:40	sc		ED	4		х	X	x	x														
PDI-SC-S157 - 14 to 15.9	8/17/2018	105245	SC		ED	4		x	<u> x</u>	<u>x</u>	x														
A 10-177 (17-17) (17-18)	-		-		-								- Desire												
PDI-RB-SS-180816-1110	8/16/2018	11:10	w		ED								х	x	x	х									
PDI-RB-SS-180817	8/17/2018	7:45	W		ED		Щ						X	х	х	x									
Container Type: WMG=Wide Mouth Glass Jar,					s, G≠glass	, RC=Resin	Col	AG	AG	WMG	WMG	AG						\perp			 ļ	<u> </u>			
Preservative: HCl = Hydrochloric Acid, H3PO4		c Acid, HI	VO3 = Nitri	Acid				6.	<u> </u>	<u> </u>								L_			 	1			
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Burlington, Oscarlo Casada L7L 0E6 Ph: 1-905-331-3111 Fax: 0					•		CI	HAI	IN ()F (TIS	TOI	οv									
Client Contact		Projec	t Contact: A	ny Dahi / Ch	elsey Cook					ennifer		101			15					·		
AFCOM 1111 3rd Ave Suite 1600		Tel	: (206) 438-2	261 / (206) 4.	38-2010		La	borato	ry Co	ofact: \	Whitne	ey Davis				e: 8/6/1 rier: Fe		****				COC No. 1
Seattle, WA 98101	+		Analysis Tu								7	350	7	T	- -	1	1				_	5 of 5 pages
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Project #: 60566335 Study: Subsurface Sediment	1 "	Other						Ş	1	72.C		\$ 502	Lunts									
Sample Type:			· · · · · · · · · · · · · · · · · · ·			·····	1	1	ره ا	100 C	Apoless	e de la seconda	1780									
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No.	raction	d. Mary	Archiv	Grain	PCB A	9000 0000	Attentocy									
POI-SC-S053-0to2.	8/16/18	1300	Sc		EO	50		x	X	×	-		×									Sample Specific Notes:
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Container Type: WMG=Wide Mouth Glass Jar, P	=HDPE, PP=	Polyprops	ylene, AG=a	mber alass.	G=glass, i	C=Resin C	2019	AG	AG 1	WARC (AG	0.0			<u> </u>						
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Chain of Custody Record



TestAn Prica

Sampler: Lab PM: COC No: Client Information (Sub Contract Lab) Walker, Elaine M 580-58266.1 Client Contact: phone. E-Mail: State of Origin: Page: Shipping/Receiving elaine.walker@testamericainc.com Page 1 of 1 Oregon Company: Accreditations Required (See note): Job #: TestAmerica Laboratories, Inc. 580-79672-1 Address: Due Date Requested: Preservation Codes: 30 Community Drive, Suite 11, 9/5/2018 **Analysis Requested** A - HCL - Hexane TAT Requested (days): B - NaOH - None South Burlington C - Zn Acetate - AsNaO2 State, Zip: D - Nitric Acid - Na2O4S VT, 05403 E - NaHSO4 - Na2SO3 F - MeOH - Na2S2O3 PO #: G - Amchior - H2SO4 802-660-1990(Tel) 802-660-1919(Fax) H - Ascorbic Acid - TSP Dodecahydrate Email: WO #: I - Ice - Acetone J - DI Water / - MCAA K - EDTA W - pH 4-5 Project Name: Project #: L - EDA Z - other (specify) Portland Harbor Pre-Remedial Design 58012120 SSOW#: Other: Matrix Sample (W=water. Type S≖solid. (C=comp, Sample Time Sample Identification - Client ID (Lab ID) Sample Date G=grab) BT=Tissue, A=A Special Instructions/Note: Preservation Code 15:10 PDI-SC-S232-0to2 (580-79672-25) 8/16/18 Solid Х Pacific Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc. Possible Hazard Identification Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Unconfirmed Return To Client Disposal By Lab Months Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Special Instructions/QC Requirements: Empty Kit Relinquished by Date: Method of Shipment: Time: Relinguished by: Relinquished by: Company Relinquished by: Date/Time: Company Received by: Date/Time: Company Custody Seals Intact: Custody Seal No .: Cooler Temperature(s) °C and Other Remarks: A Yes ∆ No. Page 22a 25

Added by JBG on 1/4/2019

Ver: 09/20/2016

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BILL RECIPIENT

(503) 906-9240

Client: AECOM Job Number: 580-79672-3

Login Number: 79672 List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

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

TestAmerica Seattle

Client: AECOM Job Number: 580-79672-3

Login Number: 79672 List Source: TestAmerica Burlington
List Number: 2 List Creation: 08/23/18 10:47 AM

Creator: Nye, Elizabeth A

Creator: Nye, Elizabeth A		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td>Lab does not accept radioactive samples.</td>	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
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	3.8° C
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	