

# 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: 580-79329-3

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:  
8/26/2018 4:45:32 PM

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*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: 580-79329-3

**Job ID: 580-79329-3**

**Laboratory: TestAmerica Seattle**

**Narrative**

## CASE NARRATIVE

**Client: AECOM**

**Project: Portland Harbor Pre-Remedial Design**

**Report Number: 580-79329-3**

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**

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.

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

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

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-S178-0to2 (580-79329-17) and PDI-SC-S218-6to8 (580-79329-37) were analyzed for Liquid Limit, Plastic Limit and Plasticity Index of Soils in accordance with ASTM D4318.** The samples were analyzed on 08/08/2018.

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: 580-79329-3

## 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: 580-79329-3

**Client Sample ID: PDI-SC-S178-0to2**

**Lab Sample ID: 580-79329-17**

**Date Collected: 08/02/18 15:55**

**Matrix: Solid**

**Date Received: 08/03/18 13:45**

**Method: D4318 - Liquid Limit, Plastic Limit and Plasticity Index of Soils**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	69				NONE			08/08/18 16:52	1
Plastic Limit	41				NONE			08/08/18 16:52	1
Plasticity Index	28				NONE			08/08/18 16:52	1

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# Client Sample Results

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

TestAmerica Job ID: 580-79329-3

**Client Sample ID: PDI-SC-S218-6to8**

**Lab Sample ID: 580-79329-37**

**Date Collected: 08/02/18 11:35**

**Matrix: Solid**

**Date Received: 08/03/18 13:45**

**Method: D4318 - Liquid Limit, Plastic Limit and Plasticity Index of Soils**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	53				NONE			08/08/18 16:52	1
Plastic Limit	40				NONE			08/08/18 16:52	1
Plasticity Index	13				NONE			08/08/18 16:52	1

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# Lab Chronicle

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

TestAmerica Job ID: 580-79329-3

**Client Sample ID: PDI-SC-S178-0to2**

**Date Collected: 08/02/18 15:55**

**Date Received: 08/03/18 13:45**

**Lab Sample ID: 580-79329-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D4318		1	132693	08/08/18 16:52	MAP	TAL BUR

**Client Sample ID: PDI-SC-S218-6to8**

**Date Collected: 08/02/18 11:35**

**Date Received: 08/03/18 13:45**

**Lab Sample ID: 580-79329-37**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D4318		1	132693	08/08/18 16:52	MAP	TAL 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: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

## Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	07-31-19
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



# Sample Summary

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

TestAmerica Job ID: 580-79329-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79329-17	PDI-SC-S178-0to2	Solid	08/02/18 15:55	08/03/18 13:45
580-79329-37	PDI-SC-S218-6to8	Solid	08/02/18 11:35	08/03/18 13:45

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# 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 #: 60566335 Study: Subsurface Sediment

Sample Type:

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

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

Analysis Turnaround Time  
Calendar (C) or Work Days (W) W  
 21 days  
 Other \_\_\_\_\_

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				Sample Specific Notes:
							PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 1603	
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	3	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 Container  
**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**

Relinquished by: <i>[Signature]</i>	Company: AECOM	Date/Time: 8/13/18 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: APOK	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: APOK	Date/Time: 8/5/18 1345

1.2, 2.3, 4.6, 5.1, 1.7, 2.4, 2.2, 3.9





**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 Project Contact: Amy Dahl / Chealsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) <u>W</u> 21 days <input checked="" type="checkbox"/> <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																																																																																												
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 #: 60560335 Study: Subsurface Sediment Sample Type:	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Matrix</th> <th>QC Sample</th> <th>Sampler's Initials</th> <th>Total No. of Cont.</th> </tr> </thead> <tbody> <tr><td>PDI-SC-S083 - 0 to 1.6</td><td>8/1/2018</td><td>17:30</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S083 - 1.6 to 3.5</td><td>8/1/2018</td><td>17:35</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S083 - 3.5 to 5.0</td><td>8/1/2018</td><td>17:40</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S083 - 5 to 6.6</td><td>8/1/2018</td><td>17:45</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 0 to 2</td><td>8/1/2018</td><td>15:40</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 2 to 4</td><td>8/1/2018</td><td>15:45</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 4 to 6</td><td>8/1/2018</td><td>15:50</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 6 to 8</td><td>8/1/2018</td><td>15:55</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 8 to 10</td><td>8/1/2018</td><td>16:00</td><td>SC</td><td>REMOVED</td><td>ED</td><td>6</td></tr> <tr><td>PDI-SC-S032 - 10 to 12</td><td>8/1/2018</td><td>16:05</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S032 - 12 to 14</td><td>8/1/2018</td><td>16:10</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> <tr><td>PDI-SC-S172 - 0 to 2</td><td>8/2/2018</td><td>17:50</td><td>SC</td><td></td><td>ED</td><td>4</td></tr> </tbody> </table>			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	REMOVED	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
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Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input checked="" type="checkbox"/> Ship For 12 Months																																																																																														
Fraction PCDD/Fs 1613B    Archive    Grain size ASTM D7928/D6913    PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8770D-SIM, 9060, 1603    Alterberg Limits ASTM D4318																																																																																														
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# 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 21 days  
 Other

**Site Contact:** Jennifer Ray / Michaela McCoig  
 Date: 8/3/18  
**Laboratory Contact:** Elaine Walker  
 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										Sample Specific Notes:	
							Archive	PCDD/Fs 1613B	PCB Aroclors, PAHs, Total Organic Carbon	Grain size ASTM D7928/D6913	Afterberg Limits ASTM D4318	WC-PC6#	WC-PAHs	WC-DIF	WC-TBC			
PDI-SC-S218 - 6 to 8	8/2/2018	11:35	SC	MS/MSD	ED	7	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S218 - 8 to 10	8/2/2018	11:40	SC		ED	4	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S228 - 0 to 2.3	8/3/2018	9:20	SC		ED	4	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S221 - 0 to 2	8/3/2018	10:15	SC		ED	4	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S221 - 2 to 4	8/3/2018	10:20	SC	MS/MSD	ED	6	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S221 - 4 to 6	8/3/2018	10:25	SC		ED	4	X	X	X	X	X	X	X	X	X	X	X	
PDI-SC-S221 - 6 to 8.1	8/3/2018	10:30	SC		ED	4	X	X	X	X	X	X	X	X	X	X	X	
PDI-PA-55 - 180801	8/1/18	13:55	SC		ED	7	X	X	X	X	X	X	X	X	X	X	X	
PDI-PC-55 - 180802	8/2/18	16:45	SC		ED	7	X	X	X	X	X	X	X	X	X	X	X	
PDI-PC-55 - 180802	8/2/18	09:50	SC		ED	7	X	X	X	X	X	X	X	X	X	X	X	
- to -			SC		ED		X	X	X	X	X	X	X	X	X	X	X	
- to -			SC		ED		X	X	X	X	X	X	X	X	X	X	X	

**Container Type:** WING=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, PC=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

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

Relinquished by: [Signature]	Company: AECOM	Date/Time: 8/2/18 13:55	Received by: [Signature]	Company: M.E.	Date/Time: 8/3/18 13:45
Relinquished by: Jennifer M.E.	Company: M.E.	Date/Time: 8/3/18 13:45	Received by: [Signature]	Company: TAPAK	Date/Time: 8/3/18 13:45
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



**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:


**SUBSURFACE SEDIMENT  
 CHAIN OF CUSTODY**

**Project Contact:** Amy Dahl / Chelsey Cook  
**Site Contact:** Jennifer Ray / Michaela McCoog  
**Date:** 8/3/18  
**COC No:** 1

**Tel:** (206) 438-2261 / (206) 438-2010  
**Laboratory Contact:** Elaine-Walker  
**Carrier:** Courier  
 1 of 4 pages

**Analysis Turnaround Time**  
 Calendar ( C ) or Work Days ( W ) W \_\_\_\_\_  
 21 days  
 Other \_\_\_\_\_

**PCDD/Fs 1613B**  
**Archives**  
**Grain size ASTM D7928/D6913**  
**PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270B-SIM, 9060, 160.3**  
**Atterberg Limits ASTM D4318**

  
 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	Archives	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270B-SIM, 9060, 160.3	Atterberg 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	5		x	x	x	x		
PDI-SC-S086 - 0 to 2D	8/2/2018	9:20	SC		ED	3		x	x	<del>x</del>	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 Color  
 AG AG WMG WMG AG

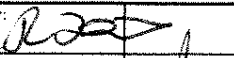




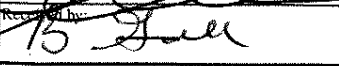
**Preservative:** HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

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

**Sample Disposal**  
 Return To Client  Disposal By Lab  Archive For 12 Months

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

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

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: TAPOL	Date/Time: 8/5/18 1345
Relinquished by: 	Company: TAPOL	Date/Time: 8/3/18 1700	Received by: 	Company: SEA DA	Date/Time: 8/14/18 1020

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.

**TestAmerica-Seattle**  
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 Tacoma, WA 98424-1317  
 Ph: 253-922-2310 Fax: 253-922-5047

## SUBSURFACE SEDIMENT CHAIN OF CUSTODY

<b>Client Contact</b>	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
<b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) W <input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other _____		Fraction PCDD/Fs 1613B Archive Grain size ASTM D928/D913 PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160,3 Afterberg Limits ASTM D4318		
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:				

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D928/D913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160,3	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	3		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 8.4	8/2/2018	18:05	SC		ED	4		x	x	x	x		
PDI-SC-S178 - 0 to 2	8/2/2018	15:55	SC		ED	5		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 Column  
 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     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 13:05
Relinquished by:	Company: M-E	Date/Time: 8/3/18 13:45	Received by:	Company: TAPAK	Date/Time: 8/3/18 13:45
Relinquished by:	Company: TAPAK	Date/Time: 8/3/18 17:00	Received by:	Company: SEA TA	Date/Time: 8/4/18 10:20





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**SUBSURFACE SEDIMENT  
 CHAIN OF CUSTODY**

<b>Client Contact</b>	<b>Project Contact: Amy Dahl / Chelsey Cook</b>	<b>Site Contact: Jennifer Ray / Michaela McCoog</b>	<b>Date: 8/3/18</b>	<b>COC No: 1</b>
AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101	<b>Tel: (206) 438-2261 / (206) 438-2010</b>	<b>Laboratory Contact: Elaine-Walker</b>	<b>Carrier: Courier</b>	<b>4 of 4 pages</b>
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling	<b>Analysis Turnaround Time</b> Calendar ( C ) or Work Days ( W ) W			
Portland, OR Project #: 60566335 Study: Subsurface Sediment	<input checked="" type="checkbox"/> 21 days <input type="checkbox"/> Other _____			
Sample Type:				

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/D9613	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Asterberg Limits ASTM D4318	WR-PC6A	WR-PAHs	WR-DIF	WR-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						
PDI-SC-S221 - 2 to 4	8/3/2018	10:20	SC	MS/MSD	ED	6		x	x	x	x						On hold
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						Per Account
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)

Sample Disposal:  Return To Client  Disposal By Lab  Archive For 12 Months

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

Relinquished by: <i>[Signature]</i>	Company: AECOM	Date/Time: 8/2/18 1305	Received by: <i>[Signature]</i>	Company: M.E.	Date/Time: 8/3/18 1305
Relinquished by: <i>[Signature]</i>	Company: M.E.	Date/Time: 8/3/18 1345	Received by: <i>[Signature]</i>	Company: TAPOR	Date/Time: 8/3/18 1345
Relinquished by: <i>[Signature]</i>	Company: TAPOR	Date/Time: 8/3/18 1700	Received by: <i>[Signature]</i>	Company: SRA TA	Date/Time: 8/14/18 1020

*Ruses*

**SUBSURFACE SEDIMENT  
CHAIN OF CUSTODY**

TestAmerica-Seattle  
5755-9th-Street-East  
Tacoma, WA 98424-1317  
PH: 253-922-2310 Fax: 253-922-5047

Client Contact  
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  
Portland, OR  
Project #: 60566335 Study: Subsurface Sediment

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

Laboratory Contact: Elaine Walker  
580-79329 Chain of Custody

Barcode: 580-79329 Chain of Custody

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Sample Disposal		Sample Specific Notes
							AG	AG	
PDI-SC-S144 - 0 to 2	8/1/2018	11:50	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S144 - 2 to 4	8/1/2018	11:55	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S144 - 4 to 6	8/1/2018	12:00	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S144 - 6 to 8	8/1/2018	12:05	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S144 - 8 to 10	8/1/2018	12:10	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S144 - 10 to 12.1	8/1/2018	12:15	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S086 - 0 to 2	8/2/2018	9:20	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S086 - 0 to 2D	8/2/2018	9:20	SC		ED	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S086 - 2 to 3.3	8/2/2018	9:25	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S218 - 0 to 2	8/2/2018	11:20	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S218 - 2 to 4.5	8/2/2018	11:25	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PDI-SC-S218 - 4.5 to 6	8/2/2018	11:30	SC		ED	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

Sample Disposal:  Return To Client  Dispose By Lab  Archive For 12 Months

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.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>[Signature]</i>	ACOR	8/3/18 13:05	<i>[Signature]</i>	M.E.	8/3/18 1305
<i>[Signature]</i>	M.E.	8/3/18 1345	<i>[Signature]</i>	TAROK	8/5/18 1345
<i>[Signature]</i>	TAROK	8/3/18 1700	<i>[Signature]</i>	SEA TA	8/4/18 1020

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# 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

**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

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:

**Site Contact:** Jennifer Ray / Michaela McCaug  
**Date:** 8/3/18  
**Carrier:** Courier

**Laboratory Contact:** Elaine Walker  
**Date:** 8/3/18  
**Carrier:** Courier

**Atterberg Limits ASTM D4318**  
**Total Solids 8082A, 8270D-STM, 9060, 1603**  
**PCB Aroclors, PAHs, Total Organic Carbon,**  
**Grain size ASTM D7928/D6913**

**Archive**  
**PCDRs 1613B**

**Fraction**

**Return To Client**  **Passal By Lab**  **Archive For 12 Months**

COC No: 1 of 4 pages

Sample Specific Notes:

Sample Date

Sample Time

Matrix

QC Sample

Sampler's Initials

Total No. of Cont.

Sample Identification

8/2/2018

17:55

SC

ED

4

PDI-SC-S172 - 2 to 4

8/2/2018

17:55

SC

ED

4

PDI-SC-S172 - 2 to 4D

8/2/2018

18:00

SC

ED

4

PDI-SC-S172 - 4 to 6

8/2/2018

18:05

SC

ED

6

PDI-SC-S172 - 6 to 8.1

8/2/2018

15:55

SC

ED

4

PDI-SC-S178 - 0 to 2

8/2/2018

16:00

SC

ED

4

PDI-SC-S178 - 2 to 3.7

8/2/2018

16:05

SC

ED

4

PDI-SC-S178 - 3.7 to 4.7

8/2/2018

16:10

SC

ED

4

PDI-SC-S178 - 4.7 to 6.7

8/2/2018

16:15

SC

ED

4

PDI-SC-S178 - 6.7 to 8.7

8/2/2018

16:20

SC

ED

4

PDI-SC-S178 - 8.7 to 10.7

8/2/2018

16:25

SC

ED

4

PDI-SC-S178 - 10.7 to 12.7

8/2/2018

16:30

SC

ED

4

PDI-SC-S178 - 12.7 to 14

**Container Type:** WIMG-Wide Mouth Glass Jar, P-HDPE, PP-Polypropylene, AG-amber glass, G-glass, RC-Resin Colu  
**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

Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:	Company:
<i>RA</i>	AECOM	8/3/18 13:05	<i>Elaine Walker</i>	8/3/18 13:05	M-E
<i>Michaela McCaug</i>	M-E	8/3/18 13:15	<i>Elaine Walker</i>	8/3/18 13:15	LABOR
<i>Elaine Walker</i>	LABOR	8/3/18 17:00	<i>Elaine Walker</i>	8/3/18 17:00	SEA TA

Per Account 8/7/18 KR



# 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 #: 60566335 Study: Subsurface Sediment

Sample Type:  21 days  
 Other

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

**Site Contact:** Jennifer Ray / Michaela McCoog  
 Laboratory Contact: Elaine Walker  
 Date: 8/3/18  
 Carrier: Courier

COC No: 1  
 3 of 4 pages

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fracton			Sample Specific Notes:
							PCDFs 1613B	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 1603	
PDI-SC-S083 - 0 to 1.6	8/1/2018	17:30	SC		ED	4	X	X	X	
PDI-SC-S083 - 1.6 to 3.5	8/1/2018	17:35	SC		ED	4	X	X	X	
PDI-SC-S083 - 3.5 to 5.0	8/1/2018	17:40	SC		ED	4	X	X	X	
PDI-SC-S083 - 5 to 6.6	8/1/2018	17:45	SC		ED	4	X	X	X	
PDI-SC-S032 - 0 to 2	8/1/2018	15:40	SC		ED	4	X	X	X	
PDI-SC-S032 - 2 to 4	8/1/2018	15:45	SC		ED	4	X	X	X	
PDI-SC-S032 - 4 to 6	8/1/2018	15:50	SC		ED	4	X	X	X	
PDI-SC-S032 - 6 to 8	8/1/2018	15:55	SC		ED	4	X	X	X	
PDI-SC-S032 - 8 to 10	8/1/2018	16:00	SC	15:50SD	ED	6	X	X	X	
PDI-SC-S032 - 10 to 12	8/1/2018	16:05	SC		ED	4	X	X	X	
PDI-SC-S032 - 12 to 14	8/1/2018	16:10	SC		ED	4	X	X	X	
PDI-SC-S172 - 0 to 2	8/2/2018	17:50	SC		ED	4	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  Dispose By Lab  Ship For 12 Months

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>[Signature]</i>	AECOM	8/3/18 13:05	<i>[Signature]</i>	M-E	8/3/18 13:05
<i>[Signature]</i>	M-E	8/3/18 13:45	<i>[Signature]</i>	AROK	8/3/18 13:05
<i>[Signature]</i>	AROK	8/3/18 17:02	<i>[Signature]</i>	SEA TA	8/14/18 10:20





ORIGIN ID:BNDA (503) 906-9240  
SAMPLE CONTROL  
TESTAMERICA PORTLAND  
9820 SW GEMINI DR  
BUILDING 7  
BEAVERTON, OR 970087145  
UNITED STATES US

SHIP DATE: 08AUG18  
ACTWT: 27.70 LB  
CAD: 0896922/CAFE3210

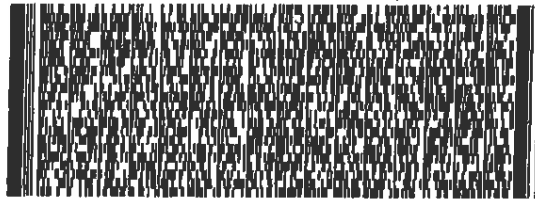
BILL RECIPIENT

TO SHIPPING/RECEIVING  
TESTAMERICA LABORATORIES, INC.  
30 COMMUNITY DRIVE  
SUITE 11  
SOUTH BURLINGTON VT 05403

(802) 880-1990

REF: 8580-30119

1 2 3 4 5 6 7 8 9 10 11



FedEx  
Express



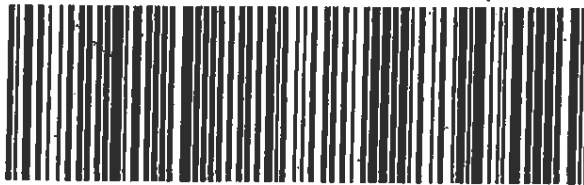
5511/3099/054C

TRK# 4423 0750 8380  
0201

TUE - 07 AUG 10:30A  
PRIORITY OVERNIGHT

XH BTVA

05403  
VT-US BTV





**Chain of Custody Record**

580-79329 Chain of Custody

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Walker, Elaine M	
Client Contact: Shipping/Receiving		E-Mail: elaine.walker@testamericainc.com	
Company: TestAmerica Laboratories, Inc.		State of Origin: Oregon	
Address: 30 Community Drive, Suite 11, South Burlington State, Zip: VT, 05403		Accreditations Required (See note):	
Phone: 802-660-1990(Tel) 802-660-1919(Fax)		Due Date Requested: 8/21/2018	
Email:		TAT Requested (days):	
Project Name: Portland Harbor Pre-Remedial Design		PO #:	
Site:		WO #:	
Sample Identification - Client ID (Lab ID)		Sample Date	
PDI-SC-S218-6to8 (580-79329-37)		8/2/18	
Sample Time		Sample Date	
11:35 Pacific		8/2/18	
Sample Type (C=Comp, G=grab)		Sample Date	
G=grab		8/2/18	
Matrix (W=water, S=solid, O=soil, BT= tissue, AA=sp)		Sample Date	
Solid		8/2/18	
Field Filtered Sample (Yes or No)		Sample Date	
X		8/2/18	
Perform MS/MSD (Yes or No)		Sample Date	
X		8/2/18	
Total Number of Containers		Sample Date	
1		8/2/18	
Special Instructions/Note:		Sample Date	
		8/2/18	
Preservation Codes:		Sample Date	
A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		8/2/18	
M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		8/2/18	
Analysis Requested		Sample Date	
		8/2/18	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Date	
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		8/2/18	
Special Instructions/QC Requirements:		Sample Date	
		8/2/18	
Unconfirmed		Sample Date	
Deliverable Requested: I, II, III, IV, Other (specify)		8/2/18	
Primary Deliverable Rank: 2		8/2/18	
Empty Kit Relinquished by:		Sample Date	
Relinquished by: [Signature]		8/2/18	
Relinquished by: [Signature]		8/2/18	
Relinquished by:		8/2/18	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		8/2/18	
Custody Seal No.: no #s		8/2/18	
Cooler Temperature(s) °C and Other Remarks: 0.7		8/2/18	

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/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.





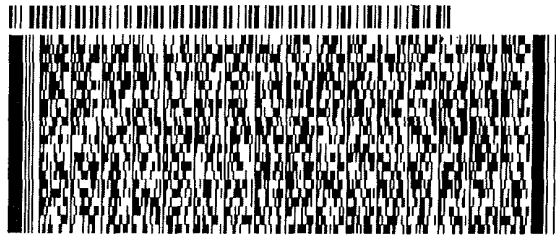
ORIGIN ID: BNOA (503) 906-9240  
SAMPLE CONTROL  
TESTAMERICA PORTLAND  
8920 SW GEMINI DR  
BUILDING 7  
BEAVERTON, OR 970087145  
UNITED STATES US

SHIP DATE: 06AUG18  
ACTWGT: 27.70 LB  
CAD: 0996922/CAFE3210

BILL RECIPIENT

TO SHIPPING/RECEIVING  
TESTAMERICA LABORATORIES, INC.  
30 COMMUNITY DRIVE  
SUITE 11  
SOUTH BURLINGTON VT 05403  
(802) 660-1990  
REF: S580-30119

551C1/3389/106C  
J181118042001UY

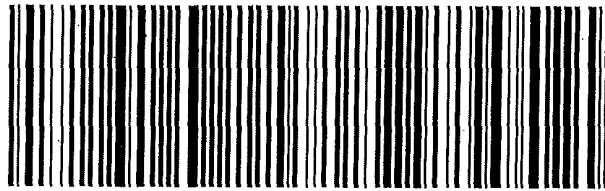


TRK# 4423 0750 8380  
0201

TUE - 07 AUG 10:30A  
PRIORITY OVERNIGHT

**XH BTVA**

05403  
VT-US BTV



## Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-79329-3

**Login Number: 79329**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: O'Connell, Jason I**

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

## Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-79329-3

**Login Number: 79329**

**List Number: 3**

**Creator: Johnson, Eleanor E**

**List Source: TestAmerica Burlington**

**List Creation: 08/07/18 11:38 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	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	0.7°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.	False	Received extra samples not listed on COC.
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

# Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-79329-3

**Login Number: 79329**

**List Number: 4**

**Creator: Johnson, Eleanor E**

**List Source: TestAmerica Burlington**

**List Creation: 08/07/18 05:47 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

## Walker, M Elaine

---

**From:** Ray, Jennifer <jennifer.ray@aecom.com>  
**Sent:** Tuesday, August 07, 2018 12:13 PM  
**To:** Walker, M Elaine; Dahl, Amy  
**Cc:** Cook, Chelsey  
**Subject:** RE: Atterberg Limits for sample PDI-SC-S178-0to2 (580-79329-17)



---

Please log in for atterberg.

Thanks,

**Jennifer Ray, EIT**  
Environmental Engineering, Environment, Portland  
D +1-503-948-7206  
M +1-971-373-1622  
[jennifer.ray@aecom.com](mailto:jennifer.ray@aecom.com)

*PRIVILEGED AND CONFIDENTIAL/JOINT DEFENSE COMMUNICATION/ATTORNEY WORK PRODUCT*

---

**From:** Walker, M Elaine [<mailto:M.Elaine.Walker@testamericainc.com>]  
**Sent:** Tuesday, August 07, 2018 9:27 AM  
**To:** Dahl, Amy  
**Cc:** Ray, Jennifer; Cook, Chelsey  
**Subject:** Atterberg Limits for sample PDI-SC-S178-0to2 (580-79329-17)  
**Importance:** High

Goof morning,

A container for Atterberg Limits was received for the referenced sample, but it is not requested on the COC (see attached). The sample container does list Atterberg Limits on the label. Does this sample need to be logged for Atterberg Limits? Burlington does have the container in their custody now.

Thanks,  
**M. ELAINE WALKER**  
Project Manager

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East  
Tacoma, WA 98424  
Tel 253.248.4972 | Fax 253.922.5047  
[www.testamericainc.com](http://www.testamericainc.com)

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