

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: 580-79257-4

Client Project/Site: Portland Harbor Pre-Remedial Design

Revision: 1

For:

AECOM 1111 Third Ave Suite 1600 Seattle, Washington 98101

Attn: Amy Dahl

M. Elaine Walker

Authorized for release by: 1/4/2019 10:06:56 AM

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: 580-79257-4

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Case Narrative

Client: AECOM TestAmerica Job ID: 580-79257-4

Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-79257-4

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE Client: AECOM

Project: Portland Harbor Pre-Remedial Design Report Number: 580-79257-4

REVISION 1: JANUARY 4, 2019

This revision was required because the Atterberg Limits calculation for sample PDI-SC-S038-2to3.4 (580-79257-16) was not performed using whole numbers for the Plasticity Limit.

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 8/1/2018 2:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.5° C, 5.1° C and 5.2° C.

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-S038-2to3.4 (580-79257-16) and PDI-SC-S038-5.4to7.2 (580-79257-18) were analyzed for Liquid Limit, Plastic Limit and Plasticity Index of Soils in accordance with ASTM D4318. The samples were analyzed on 08/03/2018.

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-S038-5.4to7.2 (580-79257-18). 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: 580-79257-4

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 Detectoria Concentration (Dedicabemints)

Client Sample Results

Client: AECOM TestAmerica Job ID: 580-79257-4

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S038-2to3.4 Lab Sample ID: 580-79257-16

Date Collected: 07/31/18 12:50 Matrix: Solid

Date Received: 08/01/18 14:10

Method: D4318 - Liquid Limit, F	Plastic Lim	it and Plasti	city Index	of Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	54				NONE			08/03/18 17:53	1
Plastic Limit	39				NONE			08/03/18 17:53	1
Plasticity Index	15				NONE			08/03/18 17:53	1

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Client Sample Results

Client: AECOM TestAmerica Job ID: 580-79257-4

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S038-5.4to7.2 Lab Sample ID: 580-79257-18

Date Collected: 07/31/18 13:00 Matrix: Solid

Date Received: 08/01/18 14:10

Method: D4318 - Liquid Limit,	Plastic Limit and Plast	ticity Index of So	ils				
Analyte	Result Qualifier	RL M	DL Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	0		NONE			08/03/18 17:53	1
Plastic Limit	0		NONE			08/03/18 17:53	1
Plasticity Index	NP		NONE			08/03/18 17:53	1

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Lab Chronicle

Client: AECOM TestAmerica Job ID: 580-79257-4

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S038-2to3.4 Lab Sample ID: 580-79257-16

Date Collected: 07/31/18 12:50 Matrix: Solid

Date Received: 08/01/18 14:10

Batch Batch Dilution Batch Prepared Method **Factor** Number or Analyzed **Prep Type** Type Run Analyst Lab TAL BUR Total/NA Analysis D4318 132505 08/03/18 17:53 MAP

Client Sample ID: PDI-SC-S038-5.4to7.2 Lab Sample ID: 580-79257-18

Date Collected: 07/31/18 13:00 Matrix: Solid

Date Received: 08/01/18 14:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	D4318		1	132505	08/03/18 17:53	MAP	TAL BUR

Laboratory References:

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

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Accreditation/Certification Summary

Client: AECOM TestAmerica Job ID: 580-79257-4

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	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

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 *
Florida	NELAP	4	E87467	06-30-19
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	12-14-19

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

Sample Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79257-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79257-16	PDI-SC-S038-2to3.4	Solid	07/31/18 12:50	08/01/18 14:10
580-79257-18	PDI-SC-S038-5.4to7.2	Solid	07/31/18 13:00	08/01/18 14:10

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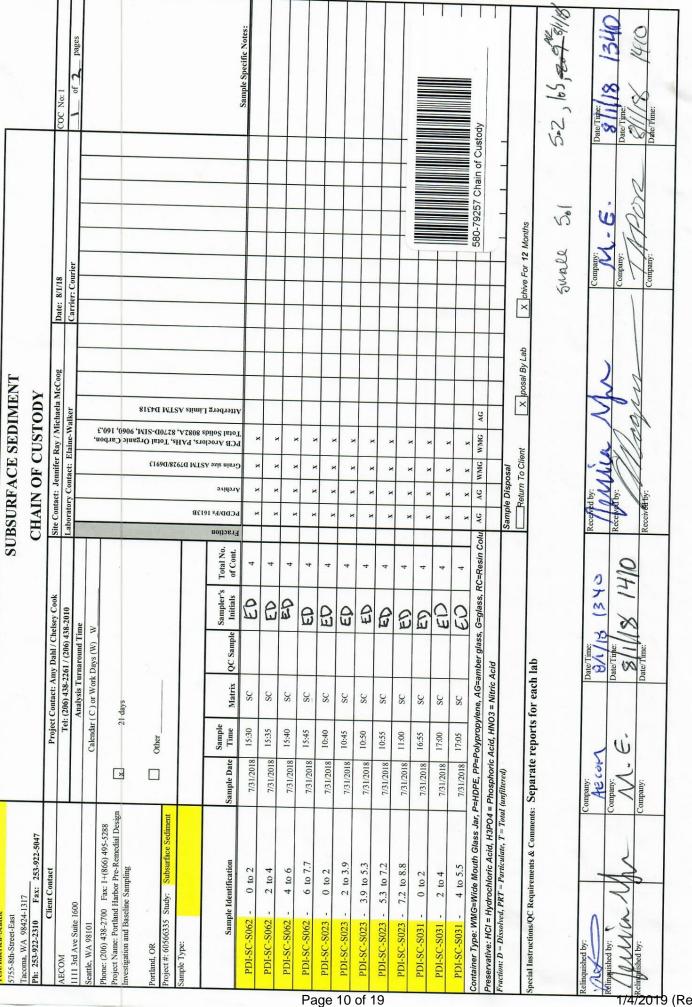
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Client Contact		Project	Contact: An	Project Contact: Amy Dahl / Chelsey Cook	elsey Cook		Site Cont	act: Jenn	Site Contact: Jennifer Ray / Michaela McCoog	Michaela	McCoog		Date	Date: 8/1/18			COC No:	-	
AECOM 1111 3-d Aus Series 1600		Tel:	(206) 438-2	Tel: (206) 438-2261 / (206) 438-2010	8-2010		Laborato	ry Contac	Laboratory Contact: Elaine-Walker	Walker			Car	ier: Cou			7	of 2	pages
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Phone: (206) 438-2700 Fax: 1+(866) 495-5288	[5	- Cays (m)					Сагроп	£.001 ,		101	111	ht					
Project Name: Portrand Harbor Pre-Remediat Design Investigation and Baseline Sampling	X	21	21 days						Organic (77.14.0	219	es hi	C- Ol	H 1/2					
Portland, OR		Other							IntoT	10-44-272		5	7 O	45/4					
rroject #: 00200233 Study: Subsurface Sediment									'sHV) (₩-	D.					
Sample Type:							8E19		lors, PA			1.	BY8	7-H9					
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction PCDD/Fs 1	Archive	Grain size A PCB Aroc Total Soli	Total Solid	- BM	- DM	מהיה מנה- לי	2-0M -0M -2M	ტო მ-ბო		Ü	Sample Specific Notes	. Notes.
PDI-SC-S031 - 5.5 to 7	7/31/2018	17:10	SC		ED	4	×	×	×										
PDI-SC-S031 - 7 to 9.2	7/31/2018	17:15	SC		ED	4	×	×											
PDI-SC-S038 - 0 to 2	7/31/2018	12:45	SC		60	4	×	×	×										
PDI-SC-S038 - 2 to 3.4	7/31/2018	12:50	SC		ED	5	×	×	×	×									
PDI-SC-8038 - 3.4 to 5.4	7/31/2018	12:55	SC		0	4	x	x	x										
PDI-SC-8038 - 5.4 to 7.2	7/31/2018	13:00	SC		CD	9	×	×	×	×									
PDI-SC-S085 - 0 to 2	8/1/2018	9:30	SC		ES	4	х	×	x										
PDI-SC-S085 - 2 to 4	8/1/2018	9:35	SC		B	4	×	×	x						i i				
PDI-SC-S085 - 4 to 6.4	8/1/2018	9:40	SC	De	5	4	x	. x	x										
PDI-SC-S085 - 4 to 6.4D	8/1/2018	9:40	SC		G	3	x	х	x										
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Container Type: Wild=Wide Wouth Glass Jaf, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, Paseonative: HCl = Hudrochloric Acid 1200A - December 2 Acid 1200A - Missis Acid	-HUPE, PP=	Polypropy	rlene, AG=	amber glass	s, G=glass, I	RC=Resin C	Colu	AG W	WMG WMG) VC		1							
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PDI-SC-S062 - 4 to 6	7/31/2018	15:40	SC		E-D	4		х	х	x	х		-										<u> </u>			
PDI-SC-S062 - 6 to 7.7	7/31/2018	15:45	sc		ED	4		x	x	х	x															
PDI-SC-S023 - 0 to 2	7/31/2018	10:40	SC		ED	4		х	х	x	x															
PDI-SC-S023 - 2 to 3.9	7/31/2018	10:45	SC		ED	4		x	X	х	x															W
PDI-SC-S023 - 3.9 to 5.3	7/31/2018	10:50	SC		ED	4		X	X	X	X															
PDI-SC-S023 - 5.3 to 7.2	7/31/2018	10:55	SC		ED	4		х	x	x	x														····	
PDI-SC-S023 - 7.2 to 8.8	7/31/2018	11:00	SC		ピク	4		x	x	X	X									T Derive bein	 	1	T 1 1848 8 3 1 1 1		ı	
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PDI-SC-S031 - 2 to 4	7/31/2018	17:00	SC		ED	4		x	x	x	x															
PDI-SC-S031 - 4 to 5.5	7/31/2018	17:05	SC		EO	4		x	x	x	x								- 500	70267	Chain	of Cus				
ontainer Type: WMG=Wide Mouth Glass Jar,					, G=glass,	RC=Resin C	olu	AG	AG	WMG	WMG	AG								19201	Crian	OI Cus	siouy			_
eservative: HCl = Hydrochloric Acid, H3PO4 action: D = Dissolved, PRT = Particulate, T = Tota		Acid, HN	O3 = Nitric	Acid				Samol	e Disp													1	1			
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								16138		Grain size ASTM D7928/D6913	PCB Aroclors, PAHS, Total Orga Total Solids 8082A, 8270D-SIM,	Atterberg Limits ASTM D4318	-0/Fs		WW. PAHS	RB-A Granders	TRH-D Metaly HO	-BEHP	18							
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PDI-SC-S031 - 5.5 to 7	7/31/2018	17:10	SC		ED	4		x	x	x	x					******										-
PDI-SC-S031 - 7 to 9.2	7/31/2018	17:15	SC		ED	4		х	x	x	x												***************************************		1	
PDI-SC-S038 - 0 to 2	7/31/2018	12:45	SC		60	4		x	N	x	x															
PDI-SC-S038 - 2 to 3.4	7/31/2018	12:50	SC		ED	5		x	x	x	х	x												***************************************	***************************************	
PDI-SC-S038 - 3.4 to 5.4	7/31/2018	12:55	SC		ED	4		х	x	x	х															
PDI-SC-S038 - 5.4 to 7.2	7/31/2018	13:00	SC		ED	6		x	x	х	X	х														
PDI-SC-S085 - 0 to 2	8/1/2018	9:30	SC		EU	4		х	x	x	х															
PDI-SC-S085 - 2 to 4	8/1/2018	9:35	SC		20	4		х	x	x	x															******
PDI-SC-S085 - 4 to 6.4	8/1/2018	9:40	SC	Dup	ED	4		x	X	Х	X															
PDI-SC-S085 - 4 to 6.4D	8/1/2018	9:40	SC		ED	3		x	х		X															
PDI-88-55-180731	7/3/10	14'.45	ω		ED	7							X	ኦ	፠	K										
N::N::(N::V::::::::::::::::::::::::::::																										
ntainer Type: WMG=Wide Mouth Glass Jar,	P≃HDPE, PP	=Polyprop	ylene, AG=	amber glas	s, G≕glass, i	RC=Resin (Colu	AG	AG	WMG	WMG	AG														
eservative: HCl = Hydrochloric Acid, H3PO4		c Acid, HN	O3 = Nitric	Acid		······································				<u> </u>																
action: D = Dissolved, PRT = Particulate, T = Total	ıl (unfiltered)								le Dis _i Return			Г.	71		- 6	F		-								
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SUBSURFACE SEDIMENT

TestAmerica-Seattle

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

8t 24-17						SUB	SURE	ACE	SUBSURFACE SEDIMENT	IENT			
Ph: 253-922-2310 Fax: 253-922-5047 Client Contact		Project (ontact: Amy	Project Contact: Amy Dahl / Chelsov Cook	v Cook	3 <u> </u> 2	HAIN	OFC	SHAIN OF CUSTODY	CHAIN OF CUSTODY	00,000		No. 1
AECOM		Tel: (206) 438-226	Tel: (206) 438-2261 / (206) 438-2010	010	i	boratory C	ontact: El	Laboratory Contact: Elaine-Walker	r r r r r r r r r r r r r r r r r r r	Carrier: Courier		Of 2 threes
1111 3rd Ave Suite 1600		A	nalysis Turr	Analysis Turnaround Time				L					4
		Calendar ((C) or Work L	Calendar (C) or Work Days (W) W					ćuo E				
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling	×	21.0	21 days						ganle Carbo f, 9060, 160.	1			
Portland, OR		Other						£169	TO Isto	D4318			
Project #: 60566335 Study: Subsurface Sediment								G/876	T ,al	MILS			
Sample Type:					1	Γ	138	STA MTS	IA¶ ,870 AS808 8	A stimi.			
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	of Cont.	PCDD/Fs 16	Archive Grain size A	PCB Aroel	Afterberg I			Sarrula Ganden Materia
PDI-SC-8062 - 0 to 2	7/31/2018	15:30	SC		£	4	×	×	×				Sample Specific Motes:
PDI-SC-S062 - 2 to 4	7/31/2018	15:35	SC		6	4	н	\vdash	×				
PDI-SC-8061 - 4 to 6	7/31/2018	15:40	SC		ED	4	×	×	×				
4 PDI-SC-SU62 - 6 to 7.7	7/31/2018	15:45	SC		6	4	×	м.	×				
G PDI-SC-S023 - 0 to 2	7/31/2018	10:40	SC		6	4	н	н	×				
PDI-SC-S023 - 2 to 3.9	7/31/2018	10:45	SC		ED	4	м	×	×				
Q PDI-SC-S023 - 3.9 to 5.3	7/31/2018	10:50	SC		ED	4	×	×	×				
Φ PDF-SC-S023 - 5.3 to 7.2	7/31/2018	10:55	SC		eg Eg	4	×	×	×				
PDI-SC-S023 - 7.2 to 8.8	7/31/2018	11:00	SC		ED	4	×	×	×				
PDI-SC-S031 - 0 to 2	7/31/2018	16:55	SC		E	4	м	×	×				
PDI-SC-S031 - 2 to 4	7/31/2018	17:00	SC		ED	4	н	×	×				
PDI-SC-S031 - 4 to 5.5	7/31/2018	17:05	SC		C)	4	×	×	х				
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass,	, P=HDPE, PP	Polyprop	rlene, AG≕	imber glass,		RC=Resin Colu	AG.	AG WMG	WMG	AG	8	odu-79207 Chain of Custody	Ápo
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)	tal (unfiltered)	Acid, niv	DG = NIMC	40,0			Sample	Sample Disposal			- '		
Special Instructions/QC Requirements & Comments: Separate reports for each lab	ats: Separat	report	s for each	lab				Return 10 Citent	ienī	X posel By Lab	ib X chive For 12 Months	anths	
		ı									Swall	S. J.	5-2, 65, 45, 41/18
Relinquished by:	Company:	5		Date/Time:	(%	0	Received	ed by:	1	777	Company:	a y.	Date/Time:
Relinquished by:	Courpany:	W		Date/Tithe:	\ \\	Olh	Received by	ić	The state of the s		Company:		Date Time:
Constitution of the Consti	Company:	An		Date/Time:	3 2	pt.	33	173 173	3	- Million	Service Company		Orter 1410
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⁄. 1)										•			

TestAmerica-Seattle: 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047						ns	BSUF	RFAC N OF	SUBSURFACE SEDIMENT CHAIN OF CUSTODY	TODY	LU	A C	1 ' 1	Ac Com	102				
ontact		Project C	ontact: Am	Project Contact: Amy Dahl / Chelsey Cook	lsey Cook	1	Site Cont	act: Jenn	Site Contact: Jenuifer Ray / Michaela McCoog	Tichaela I	AcCoog		Date:	Date: 8/1/18				COC No: 1	
) lei:	200) 438-22 nolycie Tuz	Analysis Turnessed Time	9-2010		Laborato	rry Contac	Laboratory Contact: Elaine-Walker	Valker	ŀ	}	IL S	r: Courie	- 1			7 of	2 pages
		Calendar (C) or Work	Calendar (C) or Work Days (W) W	-						_	4	ונני	W E					
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling	 	216	21 days						gante Carbon I, 9060, 160.3		ટી દા	MIS-01821	_		אנייי איי אנייי איי				
Portland, OR Project #: 60566335 Study: Subsurface Sediment		Other							TO IsloT ,eH	8164d MT2		_	¥7.0 √¥7. √	1 424 (d					
				Ţ			13B		(A¶, grad		1 /0		5H1						
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction Fraction	Archive			- DM	-7019	רוקה - באין מוקה - באין		MG-6			Solumo	
5.5 to 7	7/31/2018	17:10	SC		63	4		×	×					-	-			de ardinac	Sample Specific Notes:
7 to 9.2	7/31/2018	17:15	SC		£υ	4	×	×	-					\vdash			 		
0 to 2	7/31/2018	12:45	SC		60	4	×	×	×						\vdash				
2 to 3.4	7/31/2018	12:50	SC		E0	5	×	×	×	×					<u> </u>		-		
3.4 to 5.4	7/31/2018	12:55	SC		8	4	×	×	×			-			\vdash		-		
5,4 to 7.2	7/31/2018	13:00	SC		ED.	9	×	×	×	×									
0 to 2	8/1/2018	9:30	SC		E	4	×	×	×										
2 to 4	8/1/2018	9:35	SC		B	4	×	×	×										
4 to 6.4	8/1/2018	9:40	SC	2	Ş	4	×	×	×						-				
4 to 6.4D		9:40	SC		ଘ	۳	×	х	×										
-180731	4/3/10	구. 당.	3		ED	1					×	X	X						
to Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=ember plass. G=plass Rr	=HDPE, PP=	Polyprapy	dene. AG≡	amber ofass	3. Geolass	Rosin	Colu	Ş	WMC WMG	24		+	_		+	+			
Preservative: HCI = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Ntric Acid	= Phosphoric	Acid, HNC	33 = Nitric	Acid			_			┿		+	1	+	+	+	+		
Fraction: $D = Dissolved$, $PRT = Particulate$, $T = Total$ (unfiltered)	l (unfiltered)						Sam	Sample Disposal	ile Disposal Return To Client	┤└	X Toosel By Lab	Bylah	┨└	X Jehiva For 42 Months	-	douthe	-	ļ —	
Special Instructions/QC Requirements & Comments: Separate reports for each lab	: Separate	reports	s for eac	h lab			1			1			1			STATE			
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														· Par	}	,			

				580-79257 Chain of Chain	580-79257 Chain of Custody	IN EN	IN ENVIRONMENTAL TESTING
Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walke	Lab PM: Walker, Elaine M		(policy)	 	
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine	E-Mail: elaine.walker@testamericainc.com	icainc.com Oregon	-	Page 1 of 1	
Company: TestAmerica Laboratories, Inc.			Accreditations Required (See note):			Job #: 580-79257-1	
Address: 30 Community Drive, Suite 11,	Due Date Requested: 8/17/2018			Analysis Reguested		+	
City: South Burlington	TAT Requested (days):					A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip: VT, 05403							P - Na204S Q - Na2SO3
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		- AT (C				- Na2S2O3 - H2SO4 - TSP Dodecahydrate
Email:	WO#:				S		- Acetone - MCAA
Project Name: Portland Harbor Pre-Remedial Design	Project #: 58012120					K-EDTA L-EDA	/ - pH 4-5 - other (specify)
Site:	:#MOSS					Other:	
Sample Identification - Client ID (1 oh ID)	Sample	Sample Type (C=comp,	belaskiji i Siloj elestriji i Siloj 8164		iedmu V leid		
Carrier Canada Carrier (Lab In)		Preservation Code:	X		1	Special Inst	Special Instructions/Note:
PDI-SC-S038-2to3.4 (580-79257-16)	7/31/18 12:50 Pacific	Solid	×				
PDI-SC-S038-5.4to7.2 (580-79257-18)	7/31/18 13:00 Pacific	Solid	×		2,		
	-						
Note: Since laboratory accreditations are subject to change, Test/America Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If a currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Test/America laboratory or other instructions will be provided. Any changes to accreditation status should be brought attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Test/America Laboratories, Inc.	atories, Inc. places the ownership of sts/matrix being analyzed, the sampl int to date, retum the signed Chain c	method, analyte & accreditation es must be shipped back to the rf Custody attesting to said comp	compliance upon out sı TestAmerica laboratory blicance to TestAmerica	ibcontract laboratories. This sample or other instructions will be provided. Laboratories, Inc.	shipment is forwarded under cl . Any changes to accreditation	hain-of-custody. If the status should be brot	he laboratory does not bught to TestAmerica
Possible Hazard Identification			Sample Dispos	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	if samples are retained	longer than 1 m	onth)
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank:	2	Special Instruct	Neturn O Client Disposal By Lab Special Instructions/QC Requirements:	3y Lab Archive For	e For	Months
Empty Kit Relinguished by:	Date		Time.	Meth	Method of Shipment:		
Relinquished by:	Ч、	Company	Received by:		Date/Time:		Company
Relinantedato	511 ×151 ×15	C F CO	1		i		
The Company of the Co	Date/ Infle.	Company	Kecelved by:		Date/Time:		Сотрапу
г	.Date/Time:	Company	Received by:	an 2	Date/Im/8 / 1	1010	Company 34
Custody Seals Intact: Custody Seal No.:	7		Cooler Tempe	Cooler Temperature(s) ${}^{\circ}$ C and Other Remarks: $O(7)$			
				,			Ver: 09/20/2016

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID:BNOA (503) 90 SAMPLE CONTROL TESTAMERICA PORTLAND 8920 SW GEMINI DR BUILDING 7 BEAVERTON, OR 970087145 UNITED STATES US (503) 906-9240

SHIP DATE: 02AUG18 ACTWGT: 33.35 LB CAD: 0996922/CAFE3210

BILL RECIPIENT

AMERICA LABORATORIES, INC. **COMMUNITY DRIVE**

UTH BURLINGTON VT 05403

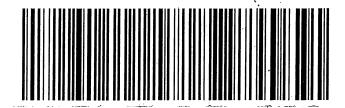




TRK# 0201 4423 0750 7969

XH BTVA

05403 BTV



Client: AECOM Job Number: 580-79257-4

Login Number: 79257 List Source: TestAmerica Seattle

List Number: 1

Creator: Antonson, Angeline D

oreator. Antonson, Angeline b		
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.	N/A	
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	

Client: AECOM Job Number: 580-79257-4

Login Number: 79257 List Source: TestAmerica Burlington
List Number: 2 List Creation: 08/03/18 01:29 PM

Creator: Mohn, Taylor J

Creator: Monn, Taylor J		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	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	0.2°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?	N/A	Received project as a subcontract.
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	