Analytical Resources, Incorporated
Analytical Chemists and Consultants

18 September 2019

Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave. E. Suite 200
Seattle, WA 98102

RE: Swan Island Lagoon Sediment Investigation

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
19I0008	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006

PJLA Testing
Accreditation # 66169

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date:8/__/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	1 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[x] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Aroclors 8082A	TOC SW9060	ARCHIVE	Sample Specific Notes:
L3-SC1b-20to30-826 19	8/26/19	1030		S	1	X	X		
L3-SC1b-30to40-826 19	8/26/19	1035		S	1	X	X		
L3-SC1b-00to10-82619	8/26/19	1006		S	1			✓	
L3-SC1b-10to20-82619	8/26/19	1007		S	1			✓	
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				
	8/ /19			S	1				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [ ] *Disposal By Lab* [x] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/3/2019 1210		ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date: 8/26/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	2 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Avec lors 8082A	TOC SW9060	Archive	Sample Specific Notes:
D6-SC1b-20to30-826 19	8/26/19	1245		S	1	X	X		
D6-SC1b-30to40-826 19	8/26/19	1300		S	1	X	X		
D6-SC1b-40to50-826 19	8/26/19	1445		S	1	X	X		
D6-SC1b-50to60-826 19	8/26/19	1450		S	1	X	X		
D6-SC1b-60to70-826 19	3/26/19	1530		S	1	X	X		
D6-SC1b-70to80-826 19	8/26/19	1540		S	1	X	X		
D6-SC1b-80to90-826 19	8/26/19	1655		S	1	X	X		
D6-SC1b-90to100-826 19	8/26/19	1700		S	1	X	X		
D6-SC1b-100to110-826 19	8/26/19	1740		S	1	X	X		
D6-SC1b-110to120-826 19	8/26/19	1750		S	1	X	X		
D6-SC1b-10to20-82619	8/26/19	1210		S	1			X	
4111-SC1b-50to60-82619	8/26/19	1500		S	1	X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [ ] *Disposal By Lab* [X] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/3/2019 1210		ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date:8/__/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	7 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	~~Sample Specific Notes~~	PCBs 8082A	TOC SW9060	Sample Specific Notes:
J3-SC1b-20to30-8 27 19	8/27/19	1000		S	1		X	X	
J3-SC1b-30to40-8 27 19	8/27/19	1005		S	1		X	X	
J3-SC1b-40to50-8 27 19	8/27/19	1120		S	1		X	X	
J3-SC1b-50to60-8 27 19	8/27/19	1125		S	1		X	X	
J3-SC1b-60to70-8 27 19	8/27/19	1130		S	1		X	X	
J3-SC1b-70to80-8 27 19	8/27/19	1135		S	1		X	X	
J3-SC1b-80to90-8 27 19	8/27/19	1220		S	1		X	X	
J3-SC1b-90to100-8 27 19	8/27/19	1225		S	1		X	X	
J3-SC1b-10to20-82719	8/27/19	0955		S	1		X	X	
[redacted]	8/ /19			S	1				
412-SC1b-80to90-82719	8/27/19	1235		S	1		X	X	
	8/ /19			S	1				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [ ] *Disposal By Lab* [X] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	PGG	9/3/2019 1210	[signature]	ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date:8/27/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	4 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[x] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Aroclors 8082A	Archive	Sample Specific Notes:
J5-SC1b-20to30-8 27 19	8/27/19	1455		S	1	X		
J5-SC1b-30to40-8 27 19	8/27/19	1500		S	1	X		
J5-SC1b-40to50-8 27 19	8/27/19	1610		S	1	X		
J5-SC1b-50to60-8 27 19	8/27/19	1615		S	1	X		
J5-SC1b-60to70-8 27 19	8/27/19	1620		S	1	X		
J5-SC1b-70to80-8 27 19	8/27/19	1625		S	1	X		
J5-SC1b-80to90-8 27 19	8/27/19	1725		S	1	X		
J5-SC1b-90to100-8 27 19	8/27/19	1730		S	1	X		
J5-SC1b-100to110-8 27 19	8/27/19	1735		S	1	X		
[redacted]								
J5-SC1b-00to10-82719	8/27/19	1445		S	1		X	
J5-SC1b-10to20-82719	8/27/19	1450		S	1		X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [ ] *Disposal By Lab* [x] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	PGG	9/3/2019 1210	[signature]	ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date: 8/27/2019 - 8/28/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	5 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[x] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8032A Aroclor	TOC SW9060	Archive	Sample Specific Notes:
J6-SC1b-20to30-8 28 19	8/28/19	0920		S	1	X	X		
J6-SC1b-30to40-8 28 19	8/28/19	0925		S	1	X	X		
J6-SC1b-40to50-8 28 19	8/28/19	1025		S	1	X	X		
J6-SC1b-50to60-8 28 19	8/28/19	1030		S	1	X	X		
J6-SC1b-60to70-8 28 19	8/28/19	1035		S	1	X	X		
J6-SC1b-70to80-8 28 19	8/28/19	1040		S	1	X	X		
J6-SC1b-80to90-8 28 19	8/28/19	1155		S	1	X	X		
J6-SC1b-90to100-8 28 19	8/28/19	1200		S	1	X	X		
J6-SC1b-100to110-8 28 19	8/28/19	1205		S	1	X	X		
J6-SC1b-110to120-8 28 19	8/28/19	1210		S	1	X	X		
J6-SC1b-00to10-82719	8/27/19	1930		S	1			X	
J6-SC1b-10to20-82719	8/27/19	1935		S	1			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

[ ] *Return To Client* [ ] *Disposal By Lab* [x] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	PGG	9/3/2019 1210	[signature]	ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date: 8/28/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	7 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8082A Aroclor	TOC SW9060	Archive	Sample Specific Notes:
R4-SC1b-20to30-8 28 19	8/28/19	1400		S	1	X	X		
R4-SC1b-30to40-8 28 19	8/28/19	1405		S	1	X	X		
R4-SC1b-40to50-8 28 19	8/28/19	1510		S	1	X	X		
R4-SC1b-50to60-8 28 19	8/28/19	1520		S	1	X	X		
R4-SC1b-60to70-8 28 19	8/28/19	1550		S	1	X	X		
R4-SC1b-70to80-8 28 19	8/28/19	1555		S	1	X	X		
R4-SC1b-80to90-8 28 19	8/28/19	1630		S	1	X	X		
R4-SC1b-90to100-8 28 19	8/28/19	1640		S	1	X	X		
~~R4-SC1b-90to100-8 28 19~~	~~8/28/19~~			~~S~~	~~1~~				
R4-SC1b-10to20-8 28 19	8/28/19	1355		S	1			X	
	8/ /19			S	1				
	8/ /19			S	1				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

[ ] *Return To Client* [ ] *Disposal By Lab* [X] *Archive For* _____ *Months*

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/3/2019 1210		ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other AM 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date:8/__/2019	COC No: 7 of 8 COCs
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8082A Aroclor	TPC SW846	Archive	Sample Specific Notes:
R4-SC1b-100to110-8~~28~~29 19	8/28/19	1700		S	1	X	X		
R4-SC1b-110to120-8~~28~~29 19	8/28/19	1710		S	1	X	X		
R4-SC1b-120to130-8~~28~~29 19	8/28/19	1820		S	1	X	X		
~~R4-SC1b-130to140-82819~~	~~8/28/19~~	~~1825~~		~~S~~	~~1~~				
~~R4-SC1b-140to150-82819~~	~~8/28/19~~	~~1830~~		~~S~~	~~1~~				
R4-SC1b-40to50-82819	8/28/19	1045		S	1	X	X		
~~R4-SC1b-130to140-82819~~	~~8/28/19~~	~~1825~~		~~S~~	~~1~~				
~~R4-SC1b-140to150-82819~~	~~8/28/19~~	~~1830~~		~~S~~	~~1~~				
R4-SC1b--130to140-82819	8/28/19	1825		S	1	X	X		
R4-SC1b-140to150-82819	8/28/19	1830		S	1	X	X		
	8/ /19			S	1				
	8/ /19			S	1				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

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Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/3/2019 1210		ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Other ARI 19I0008

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date: 8/28/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	4 of 8 COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	standard			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Aroclor 8082A	TOC SW9060	Archive	Sample Specific Notes:
H3-SC1b-20to30-8~~28~~29 19	8/~~28~~29/19	2015		S	1	X	X		
H3-SC1b-30to40-8~~28~~29 19	8/~~28~~29/19	0825		S	1	X			
H3-SC1b-40to50-8~~28~~29 19	8/~~28~~29/19	0830		S	1	X			
H3-SC1b-50to60-8~~28~~29 19	8/~~28~~29/19	0835		S	1	X			
H3-SC1b-60to70-8~~28~~29 19	8/~~28~~29/19	0900		S	1	X			
H3-SC1b-70to80-8~~28~~29 19	8/~~28~~29/19	0905		S	1	X			
H3-SC1b-80to90-8~~28~~29 19	8/~~28~~29/19	0930		S	1	X			
H3-SC1b-90to100-8~~28~~29 19	8/~~28~~29/19	0935		S	1	X			
H3-SC1b-100to110-8~~28~~29 19	8/~~28~~29/19	0950		S	1	X			
H3-SC1b-00to10-82819	8/28/19	2005		S	1			X	
H3-SC1b-10-20-82819	8/28/19	2010		S	1			X	
	8/ /19			S	1				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

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Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/3/2019 1210		ARI	9/3/19 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

ALS Environmental

AM

CHAIN OF CUSTODY 19I0008

Sediment and Tissue Chemistry

SR#: _____

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • FAX (360) 636-1068

PAGE _____ OF _____ COC# _____

PROJECT NAME

PROJECT NUMBER

PROJECT MANAGER

COMPANY NAME

ADDRESS

CITY/STATE/ZIP

E-MAIL ADDRESS

PHONE # FAX #

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	☐ Total Volatile Solids ☐ Total Solids	TOC ☐ (ASTM D4129M) ASW 9060	Grain Size ☐PSEP ☐ PSEP	Sulfide ☐ Total (9030M) ☐ ASTMD422	☐ AVS ☐ SEM (metals list below) ☐PSEP ☐ Water Soluble	Ammonia ☐ Total (350.1M)	Metals (list below) ☐ Plumb ☐ Pore Water	Pesticides (8081)	PCBs (8082) ☒ Aroclors ☐ Congeners	Semivolatiles ☐ GC/MS SIM (PAH) ☐8270-L	Organotins ☐Bulk ☐ Pore Water ☐ TBT only	Volatiles (8260)	Dioxins ☐1613 ☐8290	TPH ☐GRO ☐ DRO ☐ RRO	☐Lipids	Tissue Sample Preparations (Instructions below)				REMARKS
711-82719	8/27/19	0840		A			X							X											
712-82819	8/27/19	0820		A			X							X											

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. CLP Like Summary (no raw data)

___ IV. Data Validation Report

___ V. EDD

INVOICE INFORMATION

P.O. # _____

Bill To: _____

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.

___ 5 day

___ Standard (15 working days)

_____ Requested Report Date

Circle which metals are to be analyzed:

SMS Metals: As Cd Cr Cu Pb Hg Ag Zn

CA Metals: Ag As Cd Cr Cu Hg Ni Pb Se Zn

SEM Metals: Cd Cu Pb Hg Ni Zn

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

SPECIAL INSTRUCTIONS/COMMENTS:

☐ Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Date/Time: 9/3/2019 1210	Date/Time: 9/3/19 1430	Date/Time:	Date/Time:
Printed Name: David Wampler	Printed Name: Kenny Dang	Printed Name:	Printed Name:
Firm: PGG	Firm: ARI	Firm:	Firm:

Chain of Custody Record

Client Contact	Project Manager: Janet Knox	Site Contact/Sampler: Jeff Parker	Date:9/12/2019	COC No:
Jeff Parker & Janet Knox	Tel/Fax:	Lab Contact:	Carrier:	_____ of _____ COCs
Pacific Groundwater Group	Analysis Turnaround Time			Job No. 2006-00115
2377 Eastlake Ave E, Seattle WA 98102	*standard*			
206 329 0141 Phone	TAT if different from Below _____			
206 329 6968 FAX	[X] standard			SDG No.
Swan Island Lagoon Sediment Investigation	[ ] 1 week			
Site:	[ ] 2 days			
P O #	[ ] 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Reliquish to ARI	Sample Specific Notes:
H3-SC1b-20to30-82819	8/28/2019	20:15:00		S	1	x	
J3-SC1b-30to40-82719	8/27/2019	10:15:00		S	1	x	
J3-SC1b-40to50-82719	8/27/2019	11:20:00		S	1	x	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

[ ] *Return To Client* [ ] *Disposal By Lab* [X] *Archive For* _____ *Months*

TA to relinquish 3 samples to ARI.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PGG	9/12/2019 8:45			
Relinquished by:	Company: TA	Date/Time: 9/12/19 1322	Received by:	Company: ARI	Date/Time: 9/12/19 1322
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L3-SC1b-20to30-82619	19I0008-01	Solid	26-Aug-2019 10:30	03-Sep-2019 14:30
L3-SC1b-30to40-82619	19I0008-02	Solid	26-Aug-2019 10:35	03-Sep-2019 14:30
D6-SC1b-20to30-82619	19I0008-05	Solid	26-Aug-2019 12:45	03-Sep-2019 14:30
D6-SC1b-30to40-82619	19I0008-06	Solid	26-Aug-2019 13:00	03-Sep-2019 14:30
D6-SC1b-40to50-82619	19I0008-07	Solid	26-Aug-2019 14:45	03-Sep-2019 14:30
D6-SC1b-50to60-82619	19I0008-08	Solid	26-Aug-2019 14:50	03-Sep-2019 14:30
D6-SC1b-60to70-82619	19I0008-09	Solid	26-Aug-2019 15:30	03-Sep-2019 14:30
D6-SC1b-70to80-82619	19I0008-10	Solid	26-Aug-2019 15:40	03-Sep-2019 14:30
D6-SC1b-80to90-82619	19I0008-11	Solid	26-Aug-2019 16:55	03-Sep-2019 14:30
D6-SC1b-90to100-82619	19I0008-12	Solid	26-Aug-2019 17:00	03-Sep-2019 14:30
D6-SC1b-100to110-82619	19I0008-13	Solid	26-Aug-2019 17:40	03-Sep-2019 14:30
D6-SC1b-110to120-82619	19I0008-14	Solid	26-Aug-2019 17:50	03-Sep-2019 14:30
411-SC1b-50to60-82619	19I0008-16	Solid	26-Aug-2019 15:00	03-Sep-2019 14:30
J3-SC1b-20to30-82719	19I0008-17	Solid	27-Aug-2019 10:00	03-Sep-2019 14:30
J3-SC1b-30to40-82719	19I0008-18	Solid	27-Aug-2019 10:05	03-Sep-2019 14:30
J3-SC1b-40to50-82719	19I0008-19	Solid	27-Aug-2019 11:20	03-Sep-2019 14:30
J3-SC1b-50to60-82719	19I0008-20	Solid	27-Aug-2019 11:25	03-Sep-2019 14:30
J3-SC1b-60to70-82719	19I0008-21	Solid	27-Aug-2019 11:30	03-Sep-2019 14:30
J3-SC1b-70to80-82719	19I0008-22	Solid	27-Aug-2019 11:35	03-Sep-2019 14:30
J3-SC1b-80to90-82719	19I0008-23	Solid	27-Aug-2019 12:20	03-Sep-2019 14:30
J3-SC1b-90to100-82719	19I0008-24	Solid	27-Aug-2019 12:25	03-Sep-2019 14:30
J3-SC1b-10to20-82719	19I0008-25	Solid	27-Aug-2019 09:55	03-Sep-2019 14:30
412-SC1b-80to90-82719	19I0008-26	Solid	27-Aug-2019 12:35	03-Sep-2019 14:30
J6-SC1b-20to30-82819	19I0008-27	Solid	28-Aug-2019 09:20	03-Sep-2019 14:30
J6-SC1b-30to40-82819	19I0008-28	Solid	28-Aug-2019 09:25	03-Sep-2019 14:30
J6-SC1b-40to50-82819	19I0008-29	Solid	28-Aug-2019 10:25	03-Sep-2019 14:30
J6-SC1b-50to60-82819	19I0008-30	Solid	28-Aug-2019 10:30	03-Sep-2019 14:30
J6-SC1b-60to70-82819	19I0008-31	Solid	28-Aug-2019 10:35	03-Sep-2019 14:30
J6-SC1b-70to80-82819	19I0008-32	Solid	28-Aug-2019 10:40	03-Sep-2019 14:30
J6-SC1b-80to90-82819	19I0008-33	Solid	28-Aug-2019 11:55	03-Sep-2019 14:30
J6-SC1b-90to100-82819	19I0008-34	Solid	28-Aug-2019 12:00	03-Sep-2019 14:30
J6-SC1b-100to110-82819	19I0008-35	Solid	28-Aug-2019 12:05	03-Sep-2019 14:30
J6-SC1b-110to120-82819	19I0008-36	Solid	28-Aug-2019 12:10	03-Sep-2019 14:30
R4-SC1b-20to30-82819	19I0008-40	Solid	28-Aug-2019 14:00	03-Sep-2019 14:30
R4-SC1b-30to40-82819	19I0008-41	Solid	28-Aug-2019 14:05	03-Sep-2019 14:30
R4-SC1b-40to50-82819	19I0008-42	Solid	28-Aug-2019 15:10	03-Sep-2019 14:30
R4-SC1b-50to60-82819	19I0008-43	Solid	28-Aug-2019 15:20	03-Sep-2019 14:30
R4-SC1b-60to70-82819	19I0008-44	Solid	28-Aug-2019 15:50	03-Sep-2019 14:30
R4-SC1b-70to80-82819	19I0008-45	Solid	28-Aug-2019 15:55	03-Sep-2019 14:30

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-80to90-82819	19I0008-46	Solid	28-Aug-2019 16:30	03-Sep-2019 14:30
R4-SC1b-90to100-82819	19I0008-48	Solid	28-Aug-2019 16:40	03-Sep-2019 14:30
R4-SC1b-100to110-82819	19I0008-50	Solid	28-Aug-2019 17:00	03-Sep-2019 14:30
R4-SC1b-110to120-82819	19I0008-51	Solid	28-Aug-2019 17:10	03-Sep-2019 14:30
R4-SC1b-120to130-82819	19I0008-52	Solid	28-Aug-2019 18:20	03-Sep-2019 14:30
413-SC1b-40to50-82819	19I0008-53	Solid	28-Aug-2019 10:45	03-Sep-2019 14:30
R4-SC1b-130to140-82819	19I0008-54	Solid	28-Aug-2019 18:25	03-Sep-2019 14:30
R4-SC1b-140to150-82819	19I0008-55	Solid	28-Aug-2019 18:30	03-Sep-2019 14:30
H3-SC1b-20to30-82819	19I0008-56	Solid	28-Aug-2019 20:15	03-Sep-2019 14:30
H3-SC1b-30to40-82919	19I0008-57	Solid	29-Aug-2019 08:25	03-Sep-2019 14:30
H3-SC1b-40to50-82919	19I0008-58	Solid	29-Aug-2019 08:30	03-Sep-2019 14:30
H3-SC1b-50to60-82919	19I0008-59	Solid	29-Aug-2019 08:35	03-Sep-2019 14:30
H3-SC1b-60to70-82919	19I0008-60	Solid	29-Aug-2019 09:00	03-Sep-2019 14:30
H3-SC1b-70to80-82919	19I0008-61	Solid	29-Aug-2019 09:05	03-Sep-2019 14:30
H3-SC1b-80to90-82919	19I0008-62	Solid	29-Aug-2019 09:30	03-Sep-2019 14:30
H3-SC1b-90to100-82919	19I0008-63	Solid	29-Aug-2019 09:35	03-Sep-2019 14:30
H3-SC1b-100to110-82919	19I0008-64	Solid	29-Aug-2019 09:50	03-Sep-2019 14:30
711-82719	19I0008-67	Water	27-Aug-2019 08:40	03-Sep-2019 14:30
712-82819	19I0008-68	Water	27-Aug-2019 08:20	03-Sep-2019 14:30
H3-SC1b-110to114-82919	19I0008-69	Solid	29-Aug-2019 10:00	03-Sep-2019 14:30
J5-SC1b-20to30-82719	19I0008-70	Solid	27-Aug-2019 14:55	03-Sep-2019 14:30
J5-SC1b-30to40-82719	19I0008-71	Solid	27-Aug-2019 15:00	03-Sep-2019 14:30
J5-SC1b-40to50-82719	19I0008-72	Solid	27-Aug-2019 16:10	03-Sep-2019 14:30
J5-SC1b-50to60-82719	19I0008-73	Solid	27-Aug-2019 16:15	03-Sep-2019 14:30
J5-SC1b-60to70-82719	19I0008-74	Solid	27-Aug-2019 16:20	03-Sep-2019 14:30
J5-SC1b-70to80-82719	19I0008-75	Solid	27-Aug-2019 16:25	03-Sep-2019 14:30
J5-SC1b-80to90-82719	19I0008-76	Solid	27-Aug-2019 17:25	03-Sep-2019 14:30
J5-SC1b-90to100-82719	19I0008-77	Solid	27-Aug-2019 17:30	03-Sep-2019 14:30
J5-SC1b-100to110-82719	19I0008-78	Solid	27-Aug-2019 17:35	03-Sep-2019 14:30

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Work Order Case Narrative

Samples from page 4 of 8 from the COC were brought to ARI on 9/5/19 and not delivered with the 9/3/19 shipment of samples.

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements with the exception of AR 1260ccv which fails low on one column. The data is reported from passing column for sequence SHI0212.

The closing AR1260 fails low on one column. The samples require a re-analysis due to no passing column to report 60 hits from for sequence SHI0212.

The AR1260ccv2 is out of control high on one column. The data is reported from the column in control for sequence SHI0212.

Internal standard areas were within limits with the exception of HBBP which is out of control low on one column for AR 1248 CCV7 in sequence SHI0124.

AR1260ccv2 internal standards HBBP and BNB fail low on one column. The data was reported from the passing column for samples 19I0008-01,-02,-05,-06,-07,-10,-11,-12,-13,-14,-16,-17,-18,-19,-20,-21,-22 for SHI0172.

HBBP internal standard is out of control low on one column for samples 19I0008-46,-48,-50,-51,-52,-56 thru-60 for sequence SHI0212. and the closing ar1260 fails low on zb-35. samples have to be re-run due to no passing column to report 60 hits from.

HBBP is out of control low on one column for 19I0008-50 and BHI0176-MS1. The data is being reported from the passing column.

The surrogate percent recoveries were within control limits with the exception of surrogates flagged on the associated forms.

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The Matrix Spike/Matrix Spike duplicate recoveries and RPD were within limits with the exception of analytes flagged on the associated forms.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Pacific Groundwater Group	Project:	Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number:	Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager:	Janet Knox	18-Sep-2019 14:41

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The Matrix Spike/Matrix Spike duplicate recoveries and RPD were within limits with the exception of analytes flagged on the associated forms.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 9/5/2019 5:42:56PM

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Report To:
Pacific Groundwater Group
Janet Knox
2377 Eastlake Ave. E. Suite 200
Seattle, WA 98102
Phone: (206) 329-0141
Fax: -

Invoice To:
Pacific Groundwater Group
Janet Knox
2377 Eastlake Ave. E. Suite 200
Seattle, WA 98102
Phone :(206) 329-0141
Fax: -

Date Due:	17-Sep-2019 18:00 (10 day TAT)		
Received By:	Kenny Dang	Date Received:	03-Sep-2019 14:30
Logged In By:	Kenny Dang	Date Logged In:	03-Sep-2019 16:15

Samples Received at: **3.7°C**

Intact, properly signed and dated custody seals attached to outside of cooler(s)	No	Custody papers included with the cooler	Yes
Custody papers properly filled out (in, signed, analyses requested, etc)	Yes	Was a temperature blank included in the cooler	Yes
Was sufficient ice used (if appropriate)	Yes	All bottles sealed in individual plastic bags	Yes
All bottles arrived in good condition (unbroken)	Yes	All bottle labels complete and legible	Yes
Number of containers listed on COC match number received	Yes	Bottle labels and tags agree with COC	No
Correct bottles used for the requested analyses	Yes	All VOC vials free of air bubbles	No
Analyses/bottles require preservation (attach preservation sheet excluding VOC)	Yes	Sufficient amount of sample sent in each bottle	Yes
Sample split at ARI	No		

Analysis	Due	TAT	Expires	Comments

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-01 L3-SC1b-20to30-82619 [Solid] Sampled 26-Aug-2019 10:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 10:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 10:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 10:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 10:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 10:30	
19I0008-02 L3-SC1b-30to40-82619 [Solid] Sampled 26-Aug-2019 10:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 10:35	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 10:35	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 10:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 10:35	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 10:35	
19I0008-03 L3-SC1b-00to10-82619 [Solid] Sampled 26-Aug-2019 10:06 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 10:06	
19I0008-04 L3-SC1b-10to20-82619 [Solid] Sampled 26-Aug-2019 10:07 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 10:07	
19I0008-05 D6-SC1b-20to30-82619 [Solid] Sampled 26-Aug-2019 12:45 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 12:45	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 12:45	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 12:45	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 12:45	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 12:45	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-06 D6-SC1b-30to40-82619 [Solid] Sampled 26-Aug-2019 13:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 13:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 13:00	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 13:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 13:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 13:00	
19I0008-07 D6-SC1b-40to50-82619 [Solid] Sampled 26-Aug-2019 14:45 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 14:45	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 14:45	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 14:45	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 14:45	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 14:45	
19I0008-08 D6-SC1b-50to60-82619 [Solid] Sampled 26-Aug-2019 14:50 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 14:50	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 14:50	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 14:50	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 14:50	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 14:50	
19I0008-09 D6-SC1b-60to70-82619 [Solid] Sampled 26-Aug-2019 15:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 15:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 15:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 15:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 15:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 15:30	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-10 D6-SC1b-70to80-82619 [Solid] Sampled 26-Aug-2019 15:40 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 15:40	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 15:40	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 15:40	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 15:40	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 15:40	
19I0008-11 D6-SC1b-80to90-82619 [Solid] Sampled 26-Aug-2019 16:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 16:55	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 16:55	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 16:55	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 16:55	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 16:55	
19I0008-12 D6-SC1b-90to100-82619 [Solid] Sampled 26-Aug-2019 17:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 17:00	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 17:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 17:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 17:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 17:00	
19I0008-13 D6-SC1b-100to110-82619 [Solid] Sampled 26-Aug-2019 17:40 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 17:40	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 17:40	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 17:40	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 17:40	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 17:40	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-14 D6-SC1b-110to120-82619 [Solid] Sampled 26-Aug-2019 17:50 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 17:50	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	23-Sep-2019 17:50	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	09-Sep-2019 17:50	
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 17:50	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 17:50	
19I0008-15 D6-SC1b-10to20-82619 [Solid] Sampled 26-Aug-2019 12:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 12:10	
19I0008-16 411-SC1b-50to60-82619 [Solid] Sampled 26-Aug-2019 15:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	09-Sep-2019 15:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	09-Sep-2019 15:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	25-Aug-2020 15:00	
19I0008-17 J3-SC1b-20to30-82719 [Solid] Sampled 27-Aug-2019 10:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 10:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 10:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 10:00	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 10:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 10:00	
19I0008-18 J3-SC1b-30to40-82719 [Solid] Sampled 27-Aug-2019 10:05 (GMT-08:00) Pacific Time (US & Canada)				**MS/MSD**
A = Glass WM, Clear, 4 oz *A 01 = Autosampler Vial, amber*				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 10:05	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 10:05	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 10:05	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 10:05	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 10:05	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-19 J3-SC1b-40to50-82719 [Solid] Sampled 27-Aug-2019 11:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 11:20	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 11:20	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 11:20	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 11:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 11:20	
19I0008-20 J3-SC1b-50to60-82719 [Solid] Sampled 27-Aug-2019 11:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz	*A 01 = Autosampler Vial, amber*			
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 11:25	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 11:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 11:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 11:25	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 11:25	
19I0008-21 J3-SC1b-60to70-82719 [Solid] Sampled 27-Aug-2019 11:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 11:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 11:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 11:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 11:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 11:30	
19I0008-22 J3-SC1b-70to80-82719 [Solid] Sampled 27-Aug-2019 11:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 11:35	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 11:35	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 11:35	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 11:35	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 11:35	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-23 J3-SC1b-80to90-82719 [Solid] Sampled 27-Aug-2019 12:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 12:20	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 12:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 12:20	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 12:20	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 12:20	
19I0008-24 J3-SC1b-90to100-82719 [Solid] Sampled 27-Aug-2019 12:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 12:25	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 12:25	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 12:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 12:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 12:25	
19I0008-25 J3-SC1b-10to20-82719 [Solid] Sampled 27-Aug-2019 09:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 09:55	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 09:55	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 09:55	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 09:55	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 09:55	
19I0008-26 412-SC1b-80to90-82719 [Solid] Sampled 27-Aug-2019 12:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	10-Sep-2019 12:35	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 12:35	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 12:35	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 12:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 12:35	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-27 J6-SC1b-20to30-82819 [Solid] Sampled 28-Aug-2019 09:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 09:20	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 09:20	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 09:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 09:20	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 09:20	
19I0008-28 J6-SC1b-30to40-82819 [Solid] Sampled 28-Aug-2019 09:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 09:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 09:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 09:25	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 09:25	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 09:25	
19I0008-29 J6-SC1b-40to50-82819 [Solid] Sampled 28-Aug-2019 10:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 10:25	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 10:25	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 10:25	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 10:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 10:25	
19I0008-30 J6-SC1b-50to60-82819 [Solid] Sampled 28-Aug-2019 10:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 10:30	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 10:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 10:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 10:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 10:30	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-31 J6-SC1b-60to70-82819 [Solid] Sampled 28-Aug-2019 10:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 10:35	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 10:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 10:35	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 10:35	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 10:35	
19I0008-32 J6-SC1b-70to80-82819 [Solid] Sampled 28-Aug-2019 10:40 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 10:40	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 10:40	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 10:40	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 10:40	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 10:40	
19I0008-33 J6-SC1b-80to90-82819 [Solid] Sampled 28-Aug-2019 11:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 11:55	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 11:55	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 11:55	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 11:55	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 11:55	
19I0008-34 J6-SC1b-90to100-82819 [Solid] Sampled 28-Aug-2019 12:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 12:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 12:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 12:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 12:00	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 12:00	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-35 J6-SC1b-100to110-82819 [Solid] Sampled 28-Aug-2019 12:05 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 12:05	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 12:05	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 12:05	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 12:05	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 12:05	
19I0008-36 J6-SC1b-110to120-82819 [Solid] Sampled 28-Aug-2019 12:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 12:10	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 12:10	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 12:10	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 12:10	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 12:10	
19I0008-37 J6-SC1b-00to10-82719 [Solid] Sampled 27-Aug-2019 19:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, amber, 4 oz.				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 19:30	
19I0008-38 J6-SC1b-00to10-82719 [Solid] Sampled 27-Aug-2019 19:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *B = Glass WM, amber, 4 oz.*				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 19:30	
19I0008-39 J6-SC1b-10to20-82719 [Solid] Sampled 27-Aug-2019 19:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *B = Glass WM, amber, 4 oz.*				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 19:35	
19I0008-40 R4-SC1b-20to30-82819 [Solid] Sampled 28-Aug-2019 14:00 (GMT-08:00) Pacific Time (US & Canada)				**MS/MSD**
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 14:00	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 14:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 14:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 14:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 14:00	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-41 R4-SC1b-30to40-82819 [Solid] Sampled 28-Aug-2019 14:05 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 14:05	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 14:05	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 14:05	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 14:05	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 14:05	
19I0008-42 R4-SC1b-40to50-82819 [Solid] Sampled 28-Aug-2019 15:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 15:10	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 15:10	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 15:10	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 15:10	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 15:10	
19I0008-43 R4-SC1b-50to60-82819 [Solid] Sampled 28-Aug-2019 15:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 15:20	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 15:20	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 15:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 15:20	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 15:20	
19I0008-44 R4-SC1b-60to70-82819 [Solid] Sampled 28-Aug-2019 15:50 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 15:50	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 15:50	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 15:50	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 15:50	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 15:50	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-45 R4-SC1b-70to80-82819 [Solid] Sampled 28-Aug-2019 15:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 15:55	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 15:55	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 15:55	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 15:55	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 15:55	
19I0008-46 R4-SC1b-80to90-82819 [Solid] Sampled 28-Aug-2019 16:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 16:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 16:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 16:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 16:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 16:30	
19I0008-47 R4-SC1b-10to20-82819 [Solid] Sampled 28-Aug-2019 13:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 13:55	
19I0008-48 R4-SC1b-90to100-82819 [Solid] Sampled 28-Aug-2019 16:40 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 16:40	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 16:40	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 16:40	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 16:40	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 16:40	
19I0008-49 R4-SC1b-10to20-82819 [Solid] Sampled 28-Aug-2019 13:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Hold Sample	17-Sep-2019 15:00	10	27-Aug-2020 13:55	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-50 R4-SC1b-100to110-82819 [Solid] Sampled 28-Aug-2019 17:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *B = Glass WM, amber, 4 oz.*				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 17:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 17:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 17:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 17:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 17:00	
19I0008-51 R4-SC1b-110to120-82819 [Solid] Sampled 28-Aug-2019 17:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 17:10	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 17:10	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 17:10	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 17:10	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 17:10	
19I0008-52 R4-SC1b-120to130-82819 [Solid] Sampled 28-Aug-2019 18:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 18:20	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 18:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 18:20	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 18:20	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 18:20	
19I0008-53 413-SC1b-40to50-82819 [Solid] Sampled 28-Aug-2019 10:45 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 10:45	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 10:45	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 10:45	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 10:45	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 10:45	

WORK ORDER

19I0008

Client: Pacific Groundwater Group **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-54 R4-SC1b-130to140-82819 [Solid] Sampled 28-Aug-2019 18:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 18:25	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 18:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 18:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 18:25	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 18:25	
19I0008-55 R4-SC1b-140to150-82819 [Solid] Sampled 28-Aug-2019 18:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 18:30	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 18:30	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 18:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 18:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 18:30	
19I0008-56 H3-SC1b-20to30-82819 [Solid] Sampled 28-Aug-2019 20:15 (GMT-08:00) Pacific Time (US & Canada)				**MS/MSD**
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 20:15	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	11-Sep-2019 20:15	
8082A PCB Solid 4	17-Sep-2019 15:00	10	11-Sep-2019 20:15	
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	11-Sep-2019 20:15	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	25-Sep-2019 20:15	
19I0008-57 H3-SC1b-30to40-82919 [Solid] Sampled 29-Aug-2019 08:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 08:25	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 08:25	
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 08:25	
19I0008-58 H3-SC1b-40to50-82919 [Solid] Sampled 29-Aug-2019 08:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 08:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 08:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 08:30	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-59 H3-SC1b-50to60-82919 [Solid] Sampled 29-Aug-2019 08:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 08:35	
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 08:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 08:35	
19I0008-60 H3-SC1b-60to70-82919 [Solid] Sampled 29-Aug-2019 09:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 09:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 09:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 09:00	
19I0008-61 H3-SC1b-70to80-82919 [Solid] Sampled 29-Aug-2019 09:05 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz *B = Glass WM, amber, 4 oz.*				
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 09:05	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 09:05	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 09:05	
19I0008-62 H3-SC1b-80to90-82919 [Solid] Sampled 29-Aug-2019 09:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 09:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 09:30	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 09:30	
19I0008-63 H3-SC1b-90to100-82919 [Solid] Sampled 29-Aug-2019 09:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 09:35	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 09:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 09:35	
19I0008-64 H3-SC1b-100to110-82919 [Solid] Sampled 29-Aug-2019 09:50 (GMT-08:00) Pacific Time (US & Canada)				**MS/MSD**
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 09:50	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 09:50	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 09:50	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-65 H3-SC1b-00to10-82919 [Solid] Sampled 28-Aug-2019 20:05 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 20:05	
19I0008-66 H3-SC1b-10-20-82919 [Solid] Sampled 28-Aug-2019 20:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	27-Aug-2020 20:10	
19I0008-67 711-82719 [Water] Sampled 27-Aug-2019 08:40 (GMT-08:00) Pacific Time (US & Canada)				
A = Miscellaneous container, 9N H2SO4B = Glass NM, Amber, 250 mL		*B 01 = Autosampler Vial, amber*	*C = Glass NM, Amber, 250 mL*	
8082A PCB (20 ug/kg) or (MTCA 0.1 u	17-Sep-2019 15:00	10	26-Aug-2020 08:40	Use this for waters only.
Carbon, Organic Total, 9060A	17-Sep-2019 15:00	10	24-Sep-2019 08:40	waters
19I0008-68 712-82819 [Water] Sampled 27-Aug-2019 08:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Miscellaneous container, 9N H2SO4B = Glass NM, Amber, 250 mL		*B 01 = Autosampler Vial, amber*	*C = Glass NM, Amber, 250 mL*	
8082A PCB (20 ug/kg) or (MTCA 0.1 u	17-Sep-2019 15:00	10	26-Aug-2020 08:20	Use this for waters only.
Carbon, Organic Total, 9060A	17-Sep-2019 15:00	10	24-Sep-2019 08:20	waters
19I0008-69 H3-SC1b-110to114-82919 [Solid] Sampled 29-Aug-2019 10:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	12-Sep-2019 10:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	26-Sep-2019 10:00	
Solids, Total, PSEP (Extractions)	17-Sep-2019 15:00	10	12-Sep-2019 10:00	
8082A PCB Solid 4	17-Sep-2019 15:00	10	12-Sep-2019 10:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	28-Aug-2020 10:00	
19I0008-70 J5-SC1b-20to30-82719 [Solid] Sampled 27-Aug-2019 14:55 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Carbon, 9060A m Solid	17-Sep-2019 15:00	10	10-Sep-2019 14:55	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 14:55	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 14:55	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 14:55	

WORK ORDER

19I0008

Client: Pacific Groundwater Group | **Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation | **Project Number:** Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-71 J5-SC1b-30to40-82719 [Solid] Sampled 27-Aug-2019 15:00 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 15:00	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 15:00	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 15:00	
19I0008-72 J5-SC1b-40to50-82719 [Solid] Sampled 27-Aug-2019 16:10 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 16:10	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 16:10	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 16:10	
19I0008-73 J5-SC1b-50to60-82719 [Solid] Sampled 27-Aug-2019 16:15 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 16:15	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 16:15	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 16:15	
19I0008-74 J5-SC1b-60to70-82719 [Solid] Sampled 27-Aug-2019 16:20 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 16:20	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 16:20	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 16:20	
19I0008-75 J5-SC1b-70to80-82719 [Solid] Sampled 27-Aug-2019 16:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 16:25	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 16:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 16:25	
19I0008-76 J5-SC1b-80to90-82719 [Solid] Sampled 27-Aug-2019 17:25 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 17:25	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 17:25	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 17:25	

WORK ORDER

19I0008

Client: Pacific Groundwater Group
Project Manager: Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor

Analysis	Due	TAT	Expires	Comments
19I0008-77 J5-SC1b-90to100-82719 [Solid] Sampled 27-Aug-2019 17:30 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 17:30	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 17:30	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 17:30	
19I0008-78 J5-SC1b-100to110-82719 [Solid] Sampled 27-Aug-2019 17:35 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 17:35	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 17:35	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 17:35	
19I0008-79 J5-SC1b-00to10-82719 [Solid] Sampled 27-Aug-2019 14:45 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 14:45	
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 14:45	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 14:45	
19I0008-80 J5-SC1b-10to20-82719 [Solid] Sampled 27-Aug-2019 14:50 (GMT-08:00) Pacific Time (US & Canada)				
A = Glass WM, Clear, 4 oz				
8082A PCB Solid 4	17-Sep-2019 15:00	10	10-Sep-2019 14:50	
Freeze and Hold Extractions Container	17-Sep-2019 15:00	10	26-Aug-2020 14:50	
Solids, Total, Dried at 103 -105 °C, Soli	17-Sep-2019 15:00	10	24-Sep-2019 14:50	

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 9/4/2019 9:36:55AM

WORK ORDER

19I0008

Client: Pacific Groundwater Group	**Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation	**Project Number:** Portland Harbor

Preservation Confirmation

Container ID	Container Type	pH
19I0008-01 A	Glass WM, Clear, 4 oz	
19I0008-02 A	Glass WM, Clear, 4 oz	
19I0008-03 A	Glass WM, Clear, 4 oz	
19I0008-04 A	Glass WM, Clear, 4 oz	
19I0008-05 A	Glass WM, Clear, 4 oz	
19I0008-06 A	Glass WM, Clear, 4 oz	
19I0008-07 A	Glass WM, Clear, 4 oz	
19I0008-08 A	Glass WM, Clear, 4 oz	
19I0008-09 A	Glass WM, Clear, 4 oz	
19I0008-10 A	Glass WM, Clear, 4 oz	
19I0008-11 A	Glass WM, Clear, 4 oz	
19I0008-12 A	Glass WM, Clear, 4 oz	
19I0008-13 A	Glass WM, Clear, 4 oz	
19I0008-14 A	Glass WM, Clear, 4 oz	
19I0008-15 A	Glass WM, Clear, 4 oz	
19I0008-16 A	Glass WM, Clear, 4 oz	
19I0008-17 A	Glass WM, Clear, 4 oz	
19I0008-18 A	Glass WM, Clear, 4 oz	
19I0008-19 A	Glass WM, Clear, 4 oz	
19I0008-20 A	Glass WM, Clear, 4 oz	
19I0008-21 A	Glass WM, Clear, 4 oz	
19I0008-22 A	Glass WM, Clear, 4 oz	
19I0008-23 A	Glass WM, Clear, 4 oz	
19I0008-24 A	Glass WM, Clear, 4 oz	
19I0008-25 A	Glass WM, Clear, 4 oz	
19I0008-26 A	Glass WM, Clear, 4 oz	
19I0008-27 A	Glass WM, Clear, 4 oz	
19I0008-28 A	Glass WM, Clear, 4 oz	
19I0008-29 A	Glass WM, Clear, 4 oz	
19I0008-30 A	Glass WM, Clear, 4 oz	
19I0008-31 A	Glass WM, Clear, 4 oz	
19I0008-32 A	Glass WM, Clear, 4 oz	
19I0008-33 A	Glass WM, Clear, 4 oz	
19I0008-34 A	Glass WM, Clear, 4 oz	
19I0008-35 A	Glass WM, Clear, 4 oz	

Reviewed By _____ Date _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 9/4/2019 9:36:55AM

WORK ORDER

19I0008

Client: Pacific Groundwater Group	**Project Manager:** Kelly Bottem
Project: Swan Island Lagoon Sediment Investigation	**Project Number:** Portland Harbor

19I0008-36 A	Glass WM, Clear, 4 oz		
19I0008-37 A	Glass WM, amber, 4 oz.		
19I0008-38 A	Glass WM, Clear, 4 oz		
19I0008-38 B	Glass WM, amber, 4 oz.		
19I0008-39 A	Glass WM, Clear, 4 oz		
19I0008-39 B	Glass WM, amber, 4 oz.		
19I0008-40 A	Glass WM, Clear, 4 oz		
19I0008-41 A	Glass WM, Clear, 4 oz		
19I0008-42 A	Glass WM, Clear, 4 oz		
19I0008-43 A	Glass WM, Clear, 4 oz		
19I0008-44 A	Glass WM, Clear, 4 oz		
19I0008-45 A	Glass WM, Clear, 4 oz		
19I0008-46 A	Glass WM, Clear, 4 oz		
19I0008-47 A	Glass WM, Clear, 4 oz		
19I0008-48 A	Glass WM, Clear, 4 oz		
19I0008-49 A	Glass WM, Clear, 4 oz		
19I0008-50 A	Glass WM, Clear, 4 oz		
19I0008-50 B	Glass WM, amber, 4 oz.		
19I0008-51 A	Glass WM, Clear, 4 oz		
19I0008-52 A	Glass WM, Clear, 4 oz		
19I0008-53 A	Glass WM, Clear, 4 oz		
19I0008-54 A	Glass WM, Clear, 4 oz		
19I0008-55 A	Glass WM, Clear, 4 oz		
19I0008-56 A	Glass WM, Clear, 4 oz		
19I0008-57 A	Glass WM, Clear, 4 oz		
19I0008-58 A	Glass WM, Clear, 4 oz		
19I0008-59 A	Glass WM, Clear, 4 oz		
19I0008-60 A	Glass WM, Clear, 4 oz		
19I0008-61 A	Glass WM, Clear, 4 oz		
19I0008-61 B	Glass WM, amber, 4 oz.		
19I0008-62 A	Glass WM, Clear, 4 oz		
19I0008-63 A	Glass WM, Clear, 4 oz		
19I0008-64 A	Glass WM, Clear, 4 oz		
19I0008-65 A	Glass WM, Clear, 4 oz		
19I0008-66 A	Glass WM, Clear, 4 oz		
19I0008-67 A	Miscellaneous container, 9N H2SO4	<2	Pass
19I0008-67 B	Glass NM, Amber, 250 mL		

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 9/4/2019 9:36:55AM

WORK ORDER

19I0008

Client: Pacific Groundwater Group	**Project Manager: Kelly Bottem**
Project: Swan Island Lagoon Sediment Investigation	**Project Number: Portland Harbor**

19I0008-67 C	Glass NM, Amber, 250 mL	
19I0008-68 A	Miscellaneous container, 9N H2SO4	<2 Pass
19I0008-68 B	Glass NM, Amber, 250 mL	
19I0008-68 C	Glass NM, Amber, 250 mL	
19I0008-69 A	Glass WM, Clear, 4 oz	

KD
Preservation Confirmed By

9/4/19
Date

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: PGG

Project Name: Swan Lagoon Sediment

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 19I0008

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1500 3.7 5.8 ___ ___ ___ ___

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO5206

Cooler Accepted by: KD Date: 9/3/19 Time: 1430

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?	KD 9/3/19	(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	_____	

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD Date: 9/3/19 Time: 1557 Labels checked by: KD

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

- Samples associated with page 4 of COC are missing
- Sample: H3-SC1b-110 to 114-82919 not on COC
- Duplicates for: J6-SC1b-00to10-82719
  J6-SC1b-10to20-82719
  R4-SC1b-100to110-82819
  H3-SC1b-70to86-82919

By: KD Date:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: PGG

Project Name: Swan Island Lagoon Sediment

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: _____

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1520 2.5

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO2565

Cooler Accepted by: [signature] Date: 9/5/19 Time: 1010

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI.....	NA	_____	

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: _____ Date: _____ Time: _____ Labels checked by: _____

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: PGG

Project Name: Swan Island Lagood

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 19I0008

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1400 11.1 ____ ____ ____ ____ ____

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO S20C

Cooler Accepted by: KD Date: 9/12/19 Time: 1322

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: Nothing			
Was sufficient ice used (if appropriate)?	NA	YES	(NO)
How were bottles sealed in plastic bags?	Individually	Grouped	(Not)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA	_____	

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: _____ Date: _____ Time: _____ Labels checked by: _____

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Temperature Compliance Form

ARI Work Order: 19I0008

Cooler#: 1 **Temperature(°C):** 11.1

Sample ID	Bottle Count	Bottle Type
Samples received above 6°C		

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Completed by: KD Date: 9/12/19 Time: 1400

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-20to30-82619

19I0008-01 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 10:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 18:17

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-01 A 01
	Preparation Batch: BHI0156	Sample Size: 15.65 g (wet)	Dry Weight:12.52 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 80.00
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-01 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-01 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-01 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**4.6**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**10.7**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**6.7**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*83.5*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*75.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*74.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-20to30-82619

19I0008-01 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 10:30

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 10:25

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-01 A

Preparation Batch: BHI0179 — Sample Size: 0.5483 g (wet) — Dry Weight:0.44 g

Prepared: 08-Sep-2019 — Final Volume: 0.5483 g — % Solids: 79.35

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.12**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-20to30-82619

19I0008-01 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 10:30
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-01
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.94 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 79.35

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**79.35**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-30to40-82619

19I0008-02 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 10:35
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 18:38

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0156 Prepared: 07-Sep-2019	Sample Size: 14.07 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-02 A 01 Dry Weight:12.50 g % Solids: 88.86
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0070 Cleaned: 11-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-02 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0062 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-02 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0063 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-02 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**8.1**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**5.1**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*79.8*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*72.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*72.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*65.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-30to40-82619

19I0008-02 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 10:35
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 12:27

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-02 A
Preparation Batch: BHI0179 — Sample Size: 0.5068 g (wet) — Dry Weight:0.40 g
Prepared: 08-Sep-2019 — Final Volume: 0.5068 g — % Solids: 79.20

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.11**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

L3-SC1b-30to40-82619

19I0008-02 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 10:35
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-02
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.92 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 79.20

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**79.20**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-20to30-82619

19I0008-05 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 12:45
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 18:59

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-05 A 01
	Preparation Batch: BHI0156	Sample Size: 23.35 g (wet)	Dry Weight:12.51 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 53.58
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-05 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-05 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-05 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**225**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**617**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**196**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*NRS*	*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*65.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*77.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-20to30-82619

19I0008-05 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 12:45
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 12:58

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-05 A
Preparation Batch: BHI0179 — Sample Size: 0.6735 g (wet) — Dry Weight:0.36 g
Prepared: 08-Sep-2019 — Final Volume: 0.6735 g — % Solids: 53.98

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.25**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-20to30-82619

19I0008-05 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 12:45

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-05

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:5.40 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.98

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.98**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-30to40-82619

19I0008-06 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 13:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 02:20

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-06 A 01
	Preparation Batch: BHI0156	Sample Size: 21.38 g (wet)	Dry Weight:12.50 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 58.46
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-06 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-06 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-06 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	10	15.6	40.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.6	40.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.6	40.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.6	40.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.6	40.0	**215**	ug/kg	D
Aroclor 1254	11097-69-1	10	15.6	40.0	**542**	ug/kg	D
Aroclor 1260	11096-82-5	10	5.9	40.0	**641**	ug/kg	D
Aroclor 1262	37324-23-5	10	5.9	40.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.9	40.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*NRS*	*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*66.9*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*87.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*74.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-30to40-82619

19I0008-06 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 13:00
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 14:30

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-06 A
Preparation Batch: BHI0179 — Sample Size: 0.5596 g (wet) — Dry Weight:0.29 g
Prepared: 08-Sep-2019 — Final Volume: 0.5596 g — % Solids: 52.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.12**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-30to40-82619

19I0008-06 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 13:00
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-06
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:5.26 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 52.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**52.64**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-40to50-82619

19I0008-07 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 14:45
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 19:41

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-07 A 01
	Preparation Batch: BHI0156	Sample Size: 22.35 g (wet)	Dry Weight:12.52 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 56.02
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-07 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-07 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-07 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**61.7**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**137**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**84.5**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*NRS*	*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*57.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*74.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*64.4*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-40to50-82619

19I0008-07 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 14:45
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 15:01

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-07 A
Preparation Batch: BHI0179 — Sample Size: 0.5089 g (wet) — Dry Weight:0.28 g
Prepared: 08-Sep-2019 — Final Volume: 0.5089 g — % Solids: 55.77

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.03**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-40to50-82619

19I0008-07 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 14:45
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-07
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:5.58 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 55.77

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**55.77**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-50to60-82619

19I0008-08 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 14:50
Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 08:59

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-08 A 01
	Preparation Batch: BHI0156	Sample Size: 20.82 g (wet)	Dry Weight:12.51 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 60.10
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-08 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-08 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-08 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**97.4**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**201**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**103**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*108*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*64.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*83.0*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.4*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-50to60-82619

19I0008-08 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 14:50
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 15:31

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-08 A
Preparation Batch: BHI0179 — Sample Size: 0.6774 g (wet) — Dry Weight:0.41 g
Prepared: 08-Sep-2019 — Final Volume: 0.6774 g — % Solids: 60.12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.76**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-50to60-82619

19I0008-08 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 14:50

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-08

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:6.01 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 60.12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**60.12**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-60to70-82619

19I0008-09 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 15:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 09:20

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-09 A 01
	Preparation Batch: BHI0156	Sample Size: 19.65 g (wet)	Dry Weight:12.51 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 63.68
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-09 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-09 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-09 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**80.2**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**185**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**91.5**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*108*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*76.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-60to70-82619

19I0008-09 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 15:30
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 16:02

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-09 A
Preparation Batch: BHI0179 — Sample Size: 0.6972 g (wet) — Dry Weight:0.42 g
Prepared: 08-Sep-2019 — Final Volume: 0.6972 g — % Solids: 60.86

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.41**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-60to70-82619

19I0008-09 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 15:30
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-09
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:6.09 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 60.86

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**60.86**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-70to80-82619

19I0008-10 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 15:40
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 20:44

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-10 A 01
	Preparation Batch: BHI0156	Sample Size: 19.07 g (wet)	Dry Weight:12.52 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 65.63
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-10 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-10 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-10 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**11.1**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**26.8**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**12.3**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*69.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*70.4*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-70to80-82619

19I0008-10 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 15:40
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 16:32

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-10 A
Preparation Batch: BHI0179 — Sample Size: 0.5075 g (wet) — Dry Weight:0.40 g
Prepared: 08-Sep-2019 — Final Volume: 0.5075 g — % Solids: 79.15

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.77**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-70to80-82619

19I0008-10 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 15:40
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-10
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.91 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 79.15

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**79.15**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-80to90-82619

19I0008-11 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 16:55
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 21:05

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-11 A 01
	Preparation Batch: BHI0156	Sample Size: 18.63 g (wet)	Dry Weight:12.55 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 67.36
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-11 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-11 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-11 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**4.6**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**9.1**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**5.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*NRS*	*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*77.8*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-80to90-82619

19I0008-11 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 16:55

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 17:03

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-11 A

Preparation Batch: BHI0179 — Sample Size: 0.6975 g (wet) — Dry Weight:0.46 g

Prepared: 08-Sep-2019 — Final Volume: 0.6975 g — % Solids: 66.51

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.87**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-80to90-82619

19I0008-11 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 16:55
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-11
Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:6.65 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 66.51

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**66.51**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-90to100-82619

19I0008-12 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 17:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 21:26

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-12 A 01
	Preparation Batch: BHI0156	Sample Size: 17.61 g (wet)	Dry Weight:12.56 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 71.30
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-12 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-12 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-12 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**1.9**	ug/kg	J
Aroclor 1254	11097-69-1	1	1.6	4.0	**2.9**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	4.0	**1.4**	ug/kg	J
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*85.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*76.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*71.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-90to100-82619

19I0008-12 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 17:00

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 17:33

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-12 A

Preparation Batch: BHI0179 — Sample Size: 0.5198 g (wet) — Dry Weight:0.37 g

Prepared: 08-Sep-2019 — Final Volume: 0.5198 g — % Solids: 70.95

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.56**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-90to100-82619

19I0008-12 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 17:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-12

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.09 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 70.95

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**70.95**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-100to110-82619

19I0008-13 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 17:40
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 22:29

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-13 A 01
	Preparation Batch: BHI0156	Sample Size: 17.87 g (wet)	Dry Weight:12.54 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 70.18
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-13 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-13 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-13 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*82.2*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*74.2*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*78.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*70.1*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-100to110-82619

19I0008-13 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 17:40

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 18:04

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-13 A

Preparation Batch: BHI0179 — Sample Size: 0.5647 g (wet) — Dry Weight:0.40 g

Prepared: 08-Sep-2019 — Final Volume: 0.5647 g — % Solids: 70.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.53**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-100to110-82619

19I0008-13 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 17:40

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-13

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.03 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 70.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**70.34**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-110to120-82619

19I0008-14 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 17:50
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 22:50

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-14 A 01
	Preparation Batch: BHI0156	Sample Size: 17.56 g (wet)	Dry Weight:12.56 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 71.51
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-14 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-14 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-14 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*86.3*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*81.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*76.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*72.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-110to120-82619

19I0008-14 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/26/2019 17:50

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 18:34

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-14 A

Preparation Batch: BHI0179 — Sample Size: 0.5835 g (wet) — Dry Weight:0.42 g

Prepared: 08-Sep-2019 — Final Volume: 0.5835 g — % Solids: 71.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.43**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

D6-SC1b-110to120-82619

19I0008-14 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 17:50

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-14

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.13 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 71.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**71.34**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

411-SC1b-50to60-82619

19I0008-16 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/26/2019 15:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 23:11

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-16 A 01
	Preparation Batch: BHI0156	Sample Size: 20.55 g (wet)	Dry Weight:12.52 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 60.92
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-16 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-16 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-16 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**104**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**271**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**93.2**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*105*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*65.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*78.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

411-SC1b-50to60-82619

19I0008-16 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/26/2019 15:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-16

Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:5.93 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 59.28

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**59.28**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-20to30-82719

19I0008-17 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 10:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 23:32

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0156 Prepared: 07-Sep-2019	Sample Size: 19.17 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-17 A 01 Dry Weight:12.56 g % Solids: 65.52
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0070 Cleaned: 11-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-17 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0062 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-17 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0063 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-17 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**43.1**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**134**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**56.8**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*58.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*70.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*62.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-20to30-82719

19I0008-17 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 10:00

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 19:05

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-17 A

Preparation Batch: BHI0179 — Sample Size: 0.5878 g (wet) — Dry Weight:0.39 g

Prepared: 08-Sep-2019 — Final Volume: 0.5878 g — % Solids: 66.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.46**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-20to30-82719

19I0008-17 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 10:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-17

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:6.67 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 66.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**66.66**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-30to40-82719

19I0008-18 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 10:05
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 23:53

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-18 A 01
	Preparation Batch: BHI0156	Sample Size: 21.65 g (wet)	Dry Weight:12.51 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 57.79
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-18 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-18 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-18 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	5	7.8	20.0	**340**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**153**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*125*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*61.6*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*89.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*64.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-30to40-82719

19I0008-18 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 10:05

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 07:41

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-18 A

Preparation Batch: BHI0374 — Sample Size: 0.569 g (wet) — Dry Weight:0.33 g

Prepared: 12-Sep-2019 — Final Volume: 0.569 g — % Solids: 58.80

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.99**	%	H

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-30to40-82719

19I0008-18 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 10:05

Instrument: BAL2 Analyst: KLE — Analyzed: 09/15/2019 23:45

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-18

Preparation Batch: BHI0436 — Sample Size: 10 g (wet) — Dry Weight:5.88 g

Prepared: 15-Sep-2019 — Final Volume: 10 g — % Solids: 58.80

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**58.80**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-40to50-82719

19I0008-19 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 11:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 00:56

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-19 A 01
	Preparation Batch: BHI0156	Sample Size: 18.79 g (wet)	Dry Weight:12.53 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 66.67
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-19 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-19 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-19 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**68.3**	ug/kg	P1
Aroclor 1260	11096-82-5	1	0.6	4.0	**67.3**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*54.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*62.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-40to50-82719

19I0008-19 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 11:20

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 09:43

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-19 A

Preparation Batch: BHI0374 — Sample Size: 0.5267 g (wet) — Dry Weight:0.35 g

Prepared: 12-Sep-2019 — Final Volume: 0.5267 g — % Solids: 66.78

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.06**	%	H

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-40to50-82719

19I0008-19 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 11:20

Instrument: BAL2 Analyst: KLE — Analyzed: 09/15/2019 23:45

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-19

Preparation Batch: BHI0436 — Sample Size: 10 g (wet) — Dry Weight:6.68 g

Prepared: 15-Sep-2019 — Final Volume: 10 g — % Solids: 66.78

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**66.78**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-50to60-82719

19I0008-20 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 11:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 01:17

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-20 A 01
	Preparation Batch: BHI0156	Sample Size: 16.97 g (wet)	Dry Weight:12.53 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 73.84
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-20 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-20 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-20 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**11.8**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**14.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*62.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*78.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*61.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-50to60-82719

19I0008-20 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 11:25

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 20:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-20 A

Preparation Batch: BHI0179 — Sample Size: 0.6558 g (wet) — Dry Weight:0.50 g

Prepared: 08-Sep-2019 — Final Volume: 0.6558 g — % Solids: 75.93

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.49**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-50to60-82719

19I0008-20 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 11:25

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-20

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.59 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 75.93

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**75.93**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-60to70-82719

19I0008-21 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 11:30

Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 01:38

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-21 A 01
	Preparation Batch: BHI0156	Sample Size: 15.19 g (wet)	Dry Weight:12.52 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 82.42
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-21 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-21 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-21 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*78.0*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*74.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*75.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-60to70-82719

19I0008-21 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 11:30

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 21:07

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-21 A

Preparation Batch: BHI0179 — Sample Size: 0.5837 g (wet) — Dry Weight:0.47 g

Prepared: 08-Sep-2019 — Final Volume: 0.5837 g — % Solids: 81.27

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.06**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-60to70-82719

19I0008-21 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 11:30

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-21

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:8.13 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 81.27

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**81.27**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-70to80-82719

19I0008-22 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 11:35

Instrument: ECD7 Analyst: JGR — Analyzed: 09/12/2019 01:59

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-22 A 01
	Preparation Batch: BHI0156	Sample Size: 15.36 g (wet)	Dry Weight:12.51 g
	Prepared: 07-Sep-2019	Final Volume: 2.5 mL	% Solids: 81.45
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-22 A 01
	Cleanup Batch: CHI0070	Initial Volume: 2.5 mL	
	Cleaned: 11-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-22 A 01
	Cleanup Batch: CHI0062	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-22 A 01
	Cleanup Batch: CHI0063	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*84.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*80.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*84.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*73.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-70to80-82719

19I0008-22 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 11:35

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 21:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-22 A

Preparation Batch: BHI0179 — Sample Size: 0.5856 g (wet) — Dry Weight:0.47 g

Prepared: 08-Sep-2019 — Final Volume: 0.5856 g — % Solids: 79.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.06**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-70to80-82719

19I0008-22 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 11:35

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-22

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.97 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 79.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**79.66**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-80to90-82719

19I0008-23 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 12:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/10/2019 22:15

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-23 A 01
	Preparation Batch: BHI0161	Sample Size: 15.98 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 78.30
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-23 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-23 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-23 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**4.0**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	4.0	**7.1**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*79.8*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*67.6*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*66.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*61.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-80to90-82719

19I0008-23 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 12:20

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 22:08

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-23 A

Preparation Batch: BHI0179 — Sample Size: 0.5274 g (wet) — Dry Weight:0.39 g

Prepared: 08-Sep-2019 — Final Volume: 0.5274 g — % Solids: 74.85

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.40**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-80to90-82719

19I0008-23 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 12:20

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-23

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.48 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 74.85

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**74.85**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-90to100-82719

19I0008-24 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 12:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 00:42

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0161 Prepared: 08-Sep-2019	Sample Size: 16.2 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-24 A 01 Dry Weight:12.50 g % Solids: 77.15
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0066 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-24 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0064 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-24 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0065 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-24 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*73.9*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*62.8*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*64.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-90to100-82719

19I0008-24 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 12:25

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 22:39

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-24 A

Preparation Batch: BHI0179 — Sample Size: 0.5276 g (wet) — Dry Weight:0.37 g

Prepared: 08-Sep-2019 — Final Volume: 0.5276 g — % Solids: 70.88

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.40**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-90to100-82719

19I0008-24 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 12:25

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-24

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.09 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 70.88

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**70.88**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-10to20-82719

19I0008-25 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 09:55

Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 01:03

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-25 A 01
	Preparation Batch: BHI0161	Sample Size: 15.32 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 81.65
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-25 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-25 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-25 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**2.3**	ug/kg	J
Aroclor 1254	11097-69-1	1	1.6	4.0	**4.6**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**4.1**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*75.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*63.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*62.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-10to20-82719

19I0008-25 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 09:55

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 23:09

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-25 A

Preparation Batch: BHI0179 — Sample Size: 0.5785 g (wet) — Dry Weight:0.46 g

Prepared: 08-Sep-2019 — Final Volume: 0.5785 g — % Solids: 80.33

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.09**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J3-SC1b-10to20-82719

19I0008-25 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 09:55

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-25

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:8.03 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 80.33

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**80.33**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

412-SC1b-80to90-82719

19I0008-26 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 12:35

Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 01:24

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-26 A 01
	Preparation Batch: BHI0161	Sample Size: 16.05 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 77.86
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-26 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-26 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-26 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**6.2**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**6.8**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*69.9*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*64.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*58.4*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*62.1*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

412-SC1b-80to90-82719

19I0008-26 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/27/2019 12:35

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/11/2019 23:40

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-26 A

Preparation Batch: BHI0179 — Sample Size: 0.6653 g (wet) — Dry Weight:0.52 g

Prepared: 08-Sep-2019 — Final Volume: 0.6653 g — % Solids: 78.14

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.34**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

412-SC1b-80to90-82719

19I0008-26 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/27/2019 12:35

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-26

Preparation Batch: BHI0180 — Sample Size: 10 g (wet) — Dry Weight:7.81 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 78.14

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**78.14**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-20to30-82819

19I0008-27 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 09:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 01:45

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0161 Prepared: 08-Sep-2019	Sample Size: 23.86 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-27 A 01 Dry Weight:12.52 g % Solids: 52.47
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0066 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-27 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0064 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-27 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0065 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-27 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**43.1**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**76.9**	ug/kg	P1
Aroclor 1260	11096-82-5	1	0.6	4.0	**66.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*84.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*62.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*73.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*65.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-20to30-82819

19I0008-27 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 09:20

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 15:54

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-27 A

Preparation Batch: BHI0334 — Sample Size: 0.506 g (wet) — Dry Weight:0.26 g

Prepared: 11-Sep-2019 — Final Volume: 0.506 g — % Solids: 51.85

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.17**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-20to30-82819

19I0008-27 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 09:20

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-27

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.18 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 51.85

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**51.85**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-30to40-82819

19I0008-28 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 09:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 02:06

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-28 A 01
	Preparation Batch: BHI0161	Sample Size: 23.05 g (wet)	Dry Weight:12.52 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 54.31
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-28 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-28 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-28 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**77.3**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**124**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**166**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*81.4*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*56.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*62.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*58.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-30to40-82819

19I0008-28 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 09:25

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 16:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-28 A

Preparation Batch: BHI0334 — Sample Size: 0.5339 g (wet) — Dry Weight:0.28 g

Prepared: 11-Sep-2019 — Final Volume: 0.5339 g — % Solids: 53.31

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.07**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-30to40-82819

19I0008-28 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 09:25

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-28

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.33 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.31

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.31**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-40to50-82819

19I0008-29 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 02:27

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0161 Prepared: 08-Sep-2019	Sample Size: 22.45 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-29 A 01 Dry Weight:12.51 g % Solids: 55.71
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0066 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-29 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0064 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-29 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0065 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-29 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**86.9**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**140**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**242**	ug/kg	E
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*78.2*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*58.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*64.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*60.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-40to50-82819

19I0008-29 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 10:25

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 16:55

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-29 A

Preparation Batch: BHI0334 — Sample Size: 0.591 g (wet) — Dry Weight:0.33 g

Prepared: 11-Sep-2019 — Final Volume: 0.591 g — % Solids: 55.04

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.02**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-40to50-82819

19I0008-29 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 10:25
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-29
Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.50 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 55.04

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**55.04**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-40to50-82819

19I0008-29RE1 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 20:59

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-29RE1 A 01
	Preparation Batch: BHI0161	Sample Size: 22.45 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.71
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-29RE1 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-29RE1 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-29RE1 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**97.3**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**231**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**251**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*96.3*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*81.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*80.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-50to60-82819

19I0008-30 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 02:48

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-30 A 01
	Preparation Batch: BHI0161	Sample Size: 21.46 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 58.25
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-30 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-30 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-30 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**150**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**380**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**207**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*105*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*63.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*72.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*65.9*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-50to60-82819

19I0008-30 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 10:30
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 17:25

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-30 A
Preparation Batch: BHI0334 — Sample Size: 0.5638 g (wet) — Dry Weight:0.32 g
Prepared: 11-Sep-2019 — Final Volume: 0.5638 g — % Solids: 57.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.88**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-50to60-82819

19I0008-30 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 10:30

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-30

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.76 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 57.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**57.64**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-60to70-82819

19I0008-31 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:35
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 03:09

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-31 A 01
	Preparation Batch: BHI0161	Sample Size: 20.7 g (wet)	Dry Weight:12.52 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 60.49
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-31 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-31 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-31 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**94.3**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**219**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**144**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*103*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*64.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*71.0*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*62.4*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-60to70-82819

19I0008-31 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 10:35

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 17:56

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-31 A

Preparation Batch: BHI0334 — Sample Size: 0.5793 g (wet) — Dry Weight:0.35 g

Prepared: 11-Sep-2019 — Final Volume: 0.5793 g — % Solids: 60.12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**1.35**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-60to70-82819

19I0008-31 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 10:35

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-31

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:6.01 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 60.12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**60.12**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-70to80-82819

19I0008-32 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:40
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 03:30

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-32 A 01
	Preparation Batch: BHI0161	Sample Size: 17.97 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 69.64
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-32 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-32 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-32 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**12.3**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**30.4**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**16.8**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*79.6*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*70.2*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*64.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*61.9*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-70to80-82819

19I0008-32 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 10:40

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 18:26

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-32 A

Preparation Batch: BHI0334 — Sample Size: 0.5858 g (wet) — Dry Weight:0.41 g

Prepared: 11-Sep-2019 — Final Volume: 0.5858 g — % Solids: 69.79

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.62**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-70to80-82819

19I0008-32 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 10:40

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-32

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:6.98 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 69.79

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**69.79**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-80to90-82819

19I0008-33 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 11:55
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 04:33

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-33 A 01
	Preparation Batch: BHI0161	Sample Size: 17.77 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 70.42
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-33 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-33 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-33 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**3.3**	ug/kg	J
Aroclor 1254	11097-69-1	1	1.6	4.0	**6.9**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**3.0**	ug/kg	J
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*78.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*70.9*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*68.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*64.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-80to90-82819

19I0008-33 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 11:55

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 19:58

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-33 A

Preparation Batch: BHI0334 — Sample Size: 0.632 g (wet) — Dry Weight:0.45 g

Prepared: 11-Sep-2019 — Final Volume: 0.632 g — % Solids: 70.43

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.52**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-80to90-82819

19I0008-33 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 11:55

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-33

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:7.04 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 70.43

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**70.43**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-90to100-82819

19I0008-34 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 12:00

Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 04:54

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-34 A 01
	Preparation Batch: BHI0161	Sample Size: 18.19 g (wet)	Dry Weight:12.52 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 68.84
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-34 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-34 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-34 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*77.9*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*74.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*62.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*63.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-90to100-82819

19I0008-34 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 12:00

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 20:29

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-34 A

Preparation Batch: BHI0334 — Sample Size: 0.571 g (wet) — Dry Weight:0.39 g

Prepared: 11-Sep-2019 — Final Volume: 0.571 g — % Solids: 68.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.72**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-90to100-82819

19I0008-34 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 12:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-34

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:6.86 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 68.64

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**68.64**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-100to110-82819

19I0008-35 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 12:05
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 05:15

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-35 A 01
	Preparation Batch: BHI0161	Sample Size: 17.86 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 69.99
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-35 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-35 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-35 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*74.5*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*73.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*61.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*61.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-100to110-82819

19I0008-35 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 12:05

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 20:59

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-35 A

Preparation Batch: BHI0334 — Sample Size: 0.5122 g (wet) — Dry Weight:0.36 g

Prepared: 11-Sep-2019 — Final Volume: 0.5122 g — % Solids: 69.58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.48**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-100to110-82819

19I0008-35 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 12:05

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-35

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:6.96 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 69.58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**69.58**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-110to120-82819

19I0008-36 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 12:10

Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 05:36

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-36 A 01
	Preparation Batch: BHI0161	Sample Size: 17.07 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 73.24
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-36 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-36 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-36 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*77.9*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*76.6*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*67.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*63.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-110to120-82819

19I0008-36 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 12:10

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 21:30

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-36 A

Preparation Batch: BHI0334 — Sample Size: 0.5591 g (wet) — Dry Weight:0.41 g

Prepared: 11-Sep-2019 — Final Volume: 0.5591 g — % Solids: 73.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.25**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J6-SC1b-110to120-82819

19I0008-36 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 12:10

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-36

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:7.36 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 73.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**73.55**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-20to30-82819

19I0008-40 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 14:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 05:57

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-40 A 01
	Preparation Batch: BHI0161	Sample Size: 23.69 g (wet)	Dry Weight:12.52 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 52.84
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-40 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-40 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-40 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**58.5**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**79.0**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**83.3**	ug/kg	P1
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*109*	*%*	P1
Surrogate: Tetrachlorometaxylene				*44-120 %*	*57.6*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*47.2*	*%*	P1
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*61.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-20to30-82819

19I0008-40 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 14:00
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 22:00

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-40 A
Preparation Batch: BHI0334 — Sample Size: 0.5623 g (wet) — Dry Weight:0.30 g
Prepared: 11-Sep-2019 — Final Volume: 0.5623 g — % Solids: 52.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.11**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-20to30-82819

19I0008-40 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 14:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-40

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.26 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 52.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**52.55**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-30to40-82819

19I0008-41 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 14:05
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 06:18

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-41 A 01
	Preparation Batch: BHI0161	Sample Size: 22.7 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.06
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-41 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-41 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-41 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**81.6**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**154**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**171**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*88.6*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*68.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*68.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*71.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-30to40-82819

19I0008-41 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 14:05

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 00:02

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-41 A

Preparation Batch: BHI0334 — Sample Size: 0.5583 g (wet) — Dry Weight:0.30 g

Prepared: 11-Sep-2019 — Final Volume: 0.5583 g — % Solids: 54.58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.38**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-30to40-82819

19I0008-41 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 14:05

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-41

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.46 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 54.58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**54.58**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-40to50-82819

19I0008-42 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 15:10
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 06:39

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-42 A 01
	Preparation Batch: BHI0161	Sample Size: 23.67 g (wet)	Dry Weight:12.50 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 52.80
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-42 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-42 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-42 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**109**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**252**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**220**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*95.5*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*74.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*63.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-40to50-82819

19I0008-42 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 15:10

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 00:33

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-42 A

Preparation Batch: BHI0334 — Sample Size: 0.5276 g (wet) — Dry Weight:0.28 g

Prepared: 11-Sep-2019 — Final Volume: 0.5276 g — % Solids: 53.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.50**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-40to50-82819

19I0008-42 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 15:10
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-42
Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.30 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.01**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-50to60-82819

19I0008-43 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 15:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 07:00

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0161 Prepared: 08-Sep-2019	Sample Size: 22.87 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-43 A 01 Dry Weight:12.54 g % Solids: 54.82
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0066 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-43 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0064 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-43 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0065 Cleaned: 10-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-43 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	19.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	19.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	19.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	19.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	19.9	**40.3**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	19.9	**70.8**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	19.9	**71.9**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	19.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	19.9	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*103*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*64.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*83.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-50to60-82819

19I0008-43 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 15:20

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 02:04

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-43 A

Preparation Batch: BHI0334 — Sample Size: 0.5621 g (wet) — Dry Weight:0.31 g

Prepared: 11-Sep-2019 — Final Volume: 0.5621 g — % Solids: 54.51

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.13**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-50to60-82819

19I0008-43 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 15:20

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-43

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.45 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 54.51

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**54.51**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-60to70-82819

19I0008-44 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 15:50
Instrument: ECD7 Analyst: JGR — Analyzed: 09/11/2019 07:21

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-44 A 01
	Preparation Batch: BHI0161	Sample Size: 23.06 g (wet)	Dry Weight:12.51 g
	Prepared: 08-Sep-2019	Final Volume: 2.5 mL	% Solids: 54.23
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-44 A 01
	Cleanup Batch: CHI0066	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-44 A 01
	Cleanup Batch: CHI0064	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-44 A 01
	Cleanup Batch: CHI0065	Initial Volume: 2.5 mL	
	Cleaned: 10-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**78.0**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**188**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**139**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*119*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*65.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*93.8*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-60to70-82819

19I0008-44 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 15:50
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 02:35

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-44 A
Preparation Batch: BHI0334 — Sample Size: 0.5285 g (wet) — Dry Weight:0.29 g
Prepared: 11-Sep-2019 — Final Volume: 0.5285 g — % Solids: 54.95

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.38**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-60to70-82819

19I0008-44 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 15:50

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-44

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.49 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 54.95

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**54.95**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-70to80-82819

19I0008-45 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 15:55
Instrument: ECD7 Analyst: JGR — Analyzed: 09/13/2019 00:34

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-45 A 01
	Preparation Batch: BHI0175	Sample Size: 22.06 g (wet)	Dry Weight:12.52 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 56.74
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-45 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-45 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-45 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**36.9**	ug/kg	P1
Aroclor 1254	11097-69-1	1	1.6	4.0	**97.0**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**186**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*93.5*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*57.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*85.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*60.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-70to80-82819

19I0008-45 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 15:55
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 03:06

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-45 A
Preparation Batch: BHI0334 — Sample Size: 0.5358 g (wet) — Dry Weight:0.30 g
Prepared: 11-Sep-2019 — Final Volume: 0.5358 g — % Solids: 56.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.93**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-70to80-82819

19I0008-45 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 15:55

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-45

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.60 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 56.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**56.01**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-80to90-82819

19I0008-46 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 16:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 22:23

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-46 A 01
	Preparation Batch: BHI0175	Sample Size: 23.14 g (wet)	Dry Weight:12.50 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 54.04
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-46 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-46 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-46 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**27.8**	ug/kg	P1
Aroclor 1254	11097-69-1	1	1.6	4.0	**91.0**	ug/kg	P1
Aroclor 1260	11096-82-5	1	0.6	4.0	**116**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*122*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*61.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*103*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-80to90-82819

19I0008-46 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 16:30

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 03:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-46 A

Preparation Batch: BHI0334 — Sample Size: 0.5482 g (wet) — Dry Weight:0.29 g

Prepared: 11-Sep-2019 — Final Volume: 0.5482 g — % Solids: 53.76

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.21**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-80to90-82819

19I0008-46 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 16:30

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-46

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.38 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.76

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.76**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-90to100-82819

19I0008-48 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 16:40
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 21:20

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-48 A 01
	Preparation Batch: BHI0175	Sample Size: 22.69 g (wet)	Dry Weight:12.52 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.19
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-48 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-48 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-48 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	5	7.8	20.0	**129**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**171**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*101*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*59.2*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*82.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.4*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-90to100-82819

19I0008-48 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 16:40

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 04:07

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-48 A

Preparation Batch: BHI0334 — Sample Size: 0.5631 g (wet) — Dry Weight:0.31 g

Prepared: 11-Sep-2019 — Final Volume: 0.5631 g — % Solids: 54.94

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.14**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-90to100-82819

19I0008-48 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 16:40

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-48

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.49 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 54.94

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**54.94**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-100to110-82819

19I0008-50 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 17:00

Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 22:44

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-50 A 01
	Preparation Batch: BHI0175	Sample Size: 23.47 g (wet)	Dry Weight:12.50 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 53.25
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-50 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-50 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-50 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**16.9**	ug/kg	P1
Aroclor 1254	11097-69-1	1	1.6	4.0	**63.7**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**76.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*88.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*66.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-100to110-82819

19I0008-50 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 17:00

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/12/2019 21:32

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-50 A

Preparation Batch: BHI0274 — Sample Size: 0.5566 g (wet) — Dry Weight:0.30 g

Prepared: 10-Sep-2019 — Final Volume: 0.5566 g — % Solids: 53.43

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**4.06**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-100to110-82819

19I0008-50 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 17:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-50

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.34 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.43

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.43**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-110to120-82819

19I0008-51 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 17:10

Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 23:05

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-51 A 01
	Preparation Batch: BHI0175	Sample Size: 23.12 g (wet)	Dry Weight:12.51 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 54.09
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-51 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-51 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-51 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**17.3**	ug/kg	P1
Aroclor 1254	11097-69-1	1	1.6	4.0	**66.0**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**83.2**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*111*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*87.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*65.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-110to120-82819

19I0008-51 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 17:10

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/12/2019 23:35

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-51 A

Preparation Batch: BHI0274 — Sample Size: 0.5164 g (wet) — Dry Weight:0.28 g

Prepared: 10-Sep-2019 — Final Volume: 0.5164 g — % Solids: 53.68

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**3.65**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-110to120-82819

19I0008-51 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 17:10

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:24

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-51

Preparation Batch: BHI0181 — Sample Size: 10 g (wet) — Dry Weight:5.37 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 53.68

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**53.68**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-120to130-82819

19I0008-52 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 18:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 23:26

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-52 A 01
	Preparation Batch: BHI0175	Sample Size: 22.17 g (wet)	Dry Weight:12.51 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 56.43
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-52 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-52 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-52 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**20.6**	ug/kg	P1
Aroclor 1254	11097-69-1	1	1.6	4.0	**79.0**	ug/kg	P1
Aroclor 1260	11096-82-5	1	0.6	4.0	**97.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*113*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*59.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*93.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.1*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-120to130-82819

19I0008-52 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 18:20

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 00:05

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-52 A

Preparation Batch: BHI0274 — Sample Size: 0.572 g (wet) — Dry Weight:0.31 g

Prepared: 10-Sep-2019 — Final Volume: 0.572 g — % Solids: 54.75

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.49**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-120to130-82819

19I0008-52 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 18:20

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-52

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:5.48 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 54.75

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**54.75**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

413-SC1b-40to50-82819

19I0008-53 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 10:45
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 21:41

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-53 A 01
	Preparation Batch: BHI0175	Sample Size: 22.52 g (wet)	Dry Weight:12.51 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.53
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-53 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-53 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-53 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	**160**	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	20.0	**391**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**269**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*96.6*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*62.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*72.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.9*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

413-SC1b-40to50-82819

19I0008-53 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 10:45

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 01:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-53 A

Preparation Batch: BHI0274 — Sample Size: 0.5644 g (wet) — Dry Weight:0.31 g

Prepared: 10-Sep-2019 — Final Volume: 0.5644 g — % Solids: 55.21

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**2.88**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

413-SC1b-40to50-82819

19I0008-53 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 10:45

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-53

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:5.52 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 55.21

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**55.21**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-130to140-82819

19I0008-54 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 18:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/13/2019 03:01

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-54 A 01
	Preparation Batch: BHI0175	Sample Size: 18.89 g (wet)	Dry Weight:12.51 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 66.20
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-54 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-54 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-54 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**10.2**	ug/kg	P1
Aroclor 1260	11096-82-5	1	0.6	4.0	**11.5**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*87.1*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*59.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*73.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*60.1*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-130to140-82819

19I0008-54 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 18:25

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 02:07

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-54 A

Preparation Batch: BHI0274 — Sample Size: 0.5982 g (wet) — Dry Weight:0.39 g

Prepared: 10-Sep-2019 — Final Volume: 0.5982 g — % Solids: 65.42

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.79**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-130to140-82819

19I0008-54 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 18:25

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-54

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:6.54 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 65.42

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**65.42**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-140to150-82819

19I0008-55 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 18:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/13/2019 03:22

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0175 Prepared: 09-Sep-2019	Sample Size: 16.38 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-55 A 01 Dry Weight:12.56 g % Solids: 76.65
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0092 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-55 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0090 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-55 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0091 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-55 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**3.7**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	4.0	**5.4**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*82.0*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*66.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*73.7*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*63.8*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-140to150-82819

19I0008-55 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 18:30

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 02:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-55 A

Preparation Batch: BHI0274 — Sample Size: 0.687 g (wet) — Dry Weight:0.53 g

Prepared: 10-Sep-2019 — Final Volume: 0.687 g — % Solids: 76.53

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.24**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

R4-SC1b-140to150-82819

19I0008-55 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 18:30

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-55

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:7.65 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 76.53

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**76.53**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-20to30-82819

19I0008-56 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/28/2019 20:15
Instrument: ECD7 Analyst: JGR — Analyzed: 09/15/2019 22:02

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0175 Prepared: 09-Sep-2019	Sample Size: 21.05 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-56 A 01 Dry Weight:12.50 g % Solids: 59.38
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0092 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-56 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0090 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-56 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0091 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-56 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.8	20.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.8	20.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.8	20.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.8	20.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	5	7.8	20.0	**369**	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	20.0	**374**	ug/kg	D
Aroclor 1262	37324-23-5	5	2.9	20.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	5	2.9	20.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*		*NRS*	NRS
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*71.5*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-20to30-82819

19I0008-56 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/28/2019 20:15
Instrument: TOC Cube Analyst: CDE — Analyzed: 09/14/2019 10:13

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-56 A
Preparation Batch: BHI0374 — Sample Size: 0.5956 g (wet) — Dry Weight:0.35 g
Prepared: 12-Sep-2019 — Final Volume: 0.5956 g — % Solids: 59.24

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**4.36**	%	H

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-20to30-82819

19I0008-56 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/28/2019 20:15

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-56

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:5.92 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 59.24

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**59.24**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-30to40-82919

19I0008-57 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 08:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 00:29

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-57 A 01
	Preparation Batch: BHI0175	Sample Size: 16.28 g (wet)	Dry Weight:12.50 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 76.79
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-57 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-57 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-57 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**5.9**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**23.8**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**27.5**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*113*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*62.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*84.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-30to40-82919

19I0008-57 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 08:25
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-57
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:7.72 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 77.16

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**77.16**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-40to50-82919

19I0008-58 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 08:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 01:53

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0175 Prepared: 09-Sep-2019	Sample Size: 16.55 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-58 A 01 Dry Weight:12.50 g % Solids: 75.55
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0092 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-58 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0090 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-58 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0091 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-58 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**4.4**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**16.7**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**24.3**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*98.7*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*67.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-40to50-82919

19I0008-58 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 08:30
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-58
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:6.83 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 68.30

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**68.30**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-50to60-82919

19I0008-59 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 08:35
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 02:14

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0175 Prepared: 09-Sep-2019	Sample Size: 17.43 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-59 A 01 Dry Weight:12.53 g % Solids: 71.88
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0092 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-59 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0090 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-59 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0091 Cleaned: 12-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-59 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**6.7**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**25.2**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**43.5**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*111*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*67.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*90.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*73.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-50to60-82919

19I0008-59 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 08:35
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-59
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:7.18 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 71.77

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**71.77**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-60to70-82919

19I0008-60 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 09:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 02:34

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-60 A 01
	Preparation Batch: BHI0175	Sample Size: 19.96 g (wet)	Dry Weight:12.51 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 62.67
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-60 A 01
	Cleanup Batch: CHI0092	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-60 A 01
	Cleanup Batch: CHI0090	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-60 A 01
	Cleanup Batch: CHI0091	Initial Volume: 2.5 mL	
	Cleaned: 12-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**5.8**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**9.0**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*102*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*63.4*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*84.4*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*65.2*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-60to70-82919

19I0008-60 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 09:00
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-60
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:6.37 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 63.70

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**63.70**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-70to80-82919

19I0008-61 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 09:05
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 04:19

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 25.23 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-61 A 01 Dry Weight:12.55 g % Solids: 49.75
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-61 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-61 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-61 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	**1.9**	ug/kg	J
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*92.1*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*77.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.4*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*72.9*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-70to80-82919

19I0008-61 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 09:05
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-61
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:4.99 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 49.89

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**49.89**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-80to90-82919

19I0008-62 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 09:30
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 04:40

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 22.15 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-62 A 01 Dry Weight:12.62 g % Solids: 56.99
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-62 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-62 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-62 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*87.6*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*75.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*75.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*72.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-80to90-82919

19I0008-62 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 09:30
Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-62
Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:5.62 g
Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 56.25

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**56.25**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-90to100-82919

19I0008-63 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 09:35
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 05:01

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-63 A 01
	Preparation Batch: BHI0176	Sample Size: 20.17 g (wet)	Dry Weight:12.72 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 63.07
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-63 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-63 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-63 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	3.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	3.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	3.9	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	3.9	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	3.9	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*84.2*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*69.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*73.0*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*71.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-90to100-82919

19I0008-63 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 09:35

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-63

Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:6.34 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 63.37

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**63.37**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-100to110-82919

19I0008-64 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 09:50
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 05:22

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-64 A 01
	Preparation Batch: BHI0176	Sample Size: 19.69 g (wet)	Dry Weight:12.67 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 64.34
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-64 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-64 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-64 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	3.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	3.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	3.9	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	3.9	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	3.9	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*87.1*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*82.9*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*78.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-100to110-82919

19I0008-64 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 09:50

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 12:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-64

Preparation Batch: BHI0183 — Sample Size: 10 g (wet) — Dry Weight:6.34 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 63.40

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**63.40**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

711-82719

19I0008-67 (Water)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 08:40
Instrument: ECD7 Analyst: JGR — Analyzed: 09/06/2019 19:09

Sample Preparation:	Preparation Method: EPA 3510C SepF Preparation Batch: BHI0076 Prepared: 05-Sep-2019	Sample Size: 500 mL Final Volume: 1 mL	Extract ID: 19I0008-67 B 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0037 Cleaned: 06-Sep-2019	Initial Volume: 1 mL Final Volume: 1 mL	Extract ID:19I0008-67 B 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0038 Cleaned: 06-Sep-2019	Initial Volume: 1 mL Final Volume: 1 mL	Extract ID:19I0008-67 B 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.018	0.100	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.018	0.100	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.018	0.100	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.018	0.100	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.018	0.100	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.018	0.100	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.017	0.100	ND	ug/L	U
Aroclor 1262	37324-23-5	1	0.017	0.100	ND	ug/L	U
Aroclor 1268	11100-14-4	1	0.017	0.100	ND	ug/L	U
Surrogate: Decachlorobiphenyl				*26-120 %*	*39.4*	*%*	
Surrogate: Tetrachlorometaxylene				*39-120 %*	*56.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*26-120 %*	*35.0*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*39-120 %*	*47.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

711-82719

19I0008-67 (Water)

Wet Chemistry

Method: EPA 9060A — Sampled: 08/27/2019 08:40

Instrument: TOC-LCSH Analyst: DJM — Analyzed: 09/05/2019 18:38

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-67 A

Preparation Batch: BHI0119 — Sample Size: 20 mL

Prepared: 05-Sep-2019 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	ND	mg/L	U

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

712-82819

19I0008-68 (Water)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 08:20

Instrument: ECD7 Analyst: JGR — Analyzed: 09/06/2019 19:30

Sample Preparation:	Preparation Method: EPA 3510C SepF Preparation Batch: BHI0076 Prepared: 05-Sep-2019	Sample Size: 500 mL Final Volume: 1 mL	Extract ID: 19I0008-68 B 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0037 Cleaned: 06-Sep-2019	Initial Volume: 1 mL Final Volume: 1 mL	Extract ID:19I0008-68 B 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0038 Cleaned: 06-Sep-2019	Initial Volume: 1 mL Final Volume: 1 mL	Extract ID:19I0008-68 B 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.018	0.100	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.018	0.100	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.018	0.100	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.018	0.100	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.018	0.100	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.018	0.100	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.017	0.100	ND	ug/L	U
Aroclor 1262	37324-23-5	1	0.017	0.100	ND	ug/L	U
Aroclor 1268	11100-14-4	1	0.017	0.100	ND	ug/L	U
Surrogate: Decachlorobiphenyl				*26-120 %*	*50.3*	*%*	
Surrogate: Tetrachlorometaxylene				*39-120 %*	*57.6*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*26-120 %*	*44.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*39-120 %*	*47.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

712-82819

19I0008-68 (Water)

Wet Chemistry

Method: EPA 9060A — Sampled: 08/27/2019 08:20

Instrument: TOC-LCSH Analyst: DJM — Analyzed: 09/05/2019 18:59

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-68 A

Preparation Batch: BHI0119 — Sample Size: 20 mL

Prepared: 05-Sep-2019 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	ND	mg/L	U

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-110to114-82919

19I0008-69 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/29/2019 10:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 05:43

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 19.15 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-69 A 01 Dry Weight:12.79 g % Solids: 66.77
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-69 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-69 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-69 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	3.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	3.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	3.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	3.9	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	3.9	**2.6**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	3.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	3.9	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*86.8*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*79.9*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*79.3*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*76.0*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-110to114-82919

19I0008-69 (Solid)

Wet Chemistry

Method: EPA 9060A m — Sampled: 08/29/2019 10:00

Instrument: TOC Cube Analyst: CDE — Analyzed: 09/13/2019 03:08

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-69 A

Preparation Batch: BHI0274 — Sample Size: 0.5715 g (wet) — Dry Weight:0.36 g

Prepared: 10-Sep-2019 — Final Volume: 0.5715 g — % Solids: 63.70

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	**0.65**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

H3-SC1b-110to114-82919

19I0008-69 (Solid)

Wet Chemistry

Method: SM 2540 G-97 — Sampled: 08/29/2019 10:00

Instrument: BAL2 Analyst: KLE — Analyzed: 09/08/2019 23:36

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 19I0008-69

Preparation Batch: BHI0182 — Sample Size: 10 g (wet) — Dry Weight:6.37 g

Prepared: 08-Sep-2019 — Final Volume: 10 g — % Solids: 63.70

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	**63.70**	%	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-20to30-82719

19I0008-70 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 14:55
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 14:08

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 24.63 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-70 A 01 Dry Weight:12.52 g % Solids: 50.84
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-70 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-70 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-70 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	10	15.6	39.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.6	39.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.6	39.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.6	39.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.6	39.9	**150**	ug/kg	D
Aroclor 1254	11097-69-1	10	15.6	39.9	**369**	ug/kg	D
Aroclor 1260	11096-82-5	10	5.9	39.9	**413**	ug/kg	D
Aroclor 1262	37324-23-5	10	5.9	39.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.9	39.9	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*117*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*75.2*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*89.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*80.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-30to40-82719

19I0008-71 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 15:00
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 08:31

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 25.3 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-71 A 01 Dry Weight:12.64 g % Solids: 49.95
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-71 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-71 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-71 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	4.0	**60.1**	ug/kg	
Aroclor 1254	11097-69-1	1	1.5	4.0	**72.1**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**83.5**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*89.3*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*67.8*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*78.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*72.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-40to50-82719

19I0008-72 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 16:10
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 14:29

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-72 A 01
	Preparation Batch: BHI0176	Sample Size: 23.13 g (wet)	Dry Weight:12.58 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 54.40
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-72 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-72 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-72 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	10	15.5	39.7	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.5	39.7	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.5	39.7	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.5	39.7	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.5	39.7	**174**	ug/kg	D
Aroclor 1254	11097-69-1	10	15.5	39.7	**469**	ug/kg	D
Aroclor 1260	11096-82-5	10	5.9	39.7	**241**	ug/kg	D
Aroclor 1262	37324-23-5	10	5.9	39.7	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.9	39.7	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*133*	*%*	*
Surrogate: Tetrachlorometaxylene				*44-120 %*	*74.0*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*102*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*84.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-50to60-82719

19I0008-73 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 16:15
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 14:50

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-73 A 01
	Preparation Batch: BHI0176	Sample Size: 22.68 g (wet)	Dry Weight:12.64 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.73
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-73 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-73 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-73 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	10	15.4	39.6	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.4	39.6	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.4	39.6	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.4	39.6	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.4	39.6	**241**	ug/kg	D
Aroclor 1254	11097-69-1	10	15.4	39.6	**552**	ug/kg	D
Aroclor 1260	11096-82-5	10	5.8	39.6	**375**	ug/kg	D
Aroclor 1262	37324-23-5	10	5.8	39.6	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.8	39.6	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*133*	*%*	*
Surrogate: Tetrachlorometaxylene				*44-120 %*	*71.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*102*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*77.4*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-60to70-82719

19I0008-74 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 16:20
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 09:55

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-74 A 01
	Preparation Batch: BHI0176	Sample Size: 22.47 g (wet)	Dry Weight:12.54 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 55.82
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-74 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-74 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-74 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	**64.2**	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	**144**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**123**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*105*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*64.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.9*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*69.3*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-70to80-82719

19I0008-75 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 16:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 10:16

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-75 A 01
	Preparation Batch: BHI0176	Sample Size: 19.48 g (wet)	Dry Weight:12.59 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 64.62
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-75 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-75 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-75 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	4.0	**169**	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	**129**	ug/kg	
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*113*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*60.7*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*86.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*68.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-80to90-82719

19I0008-76 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 17:25
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 10:37

Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BHI0176 Prepared: 09-Sep-2019	Sample Size: 17.97 g (wet) Final Volume: 2.5 mL	Extract ID: 19I0008-76 A 01 Dry Weight:12.58 g % Solids: 70.00
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CHI0097 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19I0008-76 A 01
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CHI0095 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-76 A 01
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CHI0096 Cleaned: 13-Sep-2019	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID:19I0008-76 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.6	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.6	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.6	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.6	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.6	4.0	**2.1**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	4.0	**1.7**	ug/kg	J
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*92.5*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*84.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*77.8*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*78.6*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-90to100-82719

19I0008-77 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 17:30

Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 10:58

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-77 A 01
	Preparation Batch: BHI0176	Sample Size: 17.56 g (wet)	Dry Weight:12.61 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 71.79
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-77 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-77 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-77 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	4.0	**2.7**	ug/kg	J
Aroclor 1260	11096-82-5	1	0.6	4.0	**3.1**	ug/kg	J
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*92.4*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*83.5*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*80.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*76.7*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

J5-SC1b-100to110-82719

19I0008-78 (Solid)

Aroclor PCB

Method: EPA 8082A — Sampled: 08/27/2019 17:35
Instrument: ECD7 Analyst: JGR — Analyzed: 09/16/2019 11:19

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19I0008-78 A 01
	Preparation Batch: BHI0176	Sample Size: 17.81 g (wet)	Dry Weight:12.63 g
	Prepared: 09-Sep-2019	Final Volume: 2.5 mL	% Solids: 70.90
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19I0008-78 A 01
	Cleanup Batch: CHI0097	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:19I0008-78 A 01
	Cleanup Batch: CHI0095	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:19I0008-78 A 01
	Cleanup Batch: CHI0096	Initial Volume: 2.5 mL	
	Cleaned: 13-Sep-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	1.5	4.0	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	1.5	4.0	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	1.5	4.0	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	1.5	4.0	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	1.5	4.0	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	0.6	4.0	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	0.6	4.0	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				*40-126 %*	*89.8*	*%*	
Surrogate: Tetrachlorometaxylene				*44-120 %*	*90.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]				*40-126 %*	*79.1*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*44-120 %*	*75.9*	*%*	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0076 - EPA 3510C SepF

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0076-BLK1)					Prepared: 05-Sep-2019 Analyzed: 06-Sep-2019 18:06						
Aroclor 1016	ND	0.018	0.100	ug/L							U
Aroclor 1221	ND	0.018	0.100	ug/L							U
Aroclor 1232	ND	0.018	0.100	ug/L							U
Aroclor 1242	ND	0.018	0.100	ug/L							U
Aroclor 1248	ND	0.018	0.100	ug/L							U
Aroclor 1254	ND	0.018	0.100	ug/L							U
Aroclor 1260	ND	0.017	0.100	ug/L							U
Aroclor 1262	ND	0.017	0.100	ug/L							U
Aroclor 1268	ND	0.017	0.100	ug/L							U
Surrogate: Decachlorobiphenyl	0.0578			ug/L	*0.0800*		*72.2*	*26-120*			
Surrogate: Tetrachlorometaxylene	0.0515			ug/L	*0.0800*		*64.4*	*39-120*			
Surrogate: Decachlorobiphenyl [2C]	0.0530			ug/L	*0.0800*		*66.2*	*26-120*			
Surrogate: Tetrachlorometaxylene [2C]	0.0438			ug/L	*0.0800*		*54.8*	*39-120*			
LCS (BHI0076-BS1)					Prepared: 05-Sep-2019 Analyzed: 06-Sep-2019 18:27						
Aroclor 1016	0.755	0.018	0.100	ug/L	1.00		75.5	51-120			
Aroclor 1260	0.702	0.017	0.100	ug/L	1.00		70.2	56-120			
Surrogate: Decachlorobiphenyl	0.0527			ug/L	*0.0800*		*65.9*	*26-120*			
Surrogate: Tetrachlorometaxylene	0.0526			ug/L	*0.0800*		*65.8*	*39-120*			
Surrogate: Decachlorobiphenyl [2C]	0.0465			ug/L	*0.0800*		*58.2*	*26-120*			
Surrogate: Tetrachlorometaxylene [2C]	0.0424			ug/L	*0.0800*		*53.0*	*39-120*			
LCS Dup (BHI0076-BSD1)					Prepared: 05-Sep-2019 Analyzed: 06-Sep-2019 18:48						
Aroclor 1016	0.713	0.018	0.100	ug/L	1.00		71.3	51-120	5.77	30	
Aroclor 1260	0.666	0.017	0.100	ug/L	1.00		66.6	56-120	5.28	30	
Surrogate: Decachlorobiphenyl	0.0509			ug/L	*0.0800*		*63.6*	*26-120*			
Surrogate: Tetrachlorometaxylene	0.0484			ug/L	*0.0800*		*60.5*	*39-120*			
Surrogate: Decachlorobiphenyl [2C]	0.0447			ug/L	*0.0800*		*55.9*	*26-120*			
Surrogate: Tetrachlorometaxylene [2C]	0.0387			ug/L	*0.0800*		*48.4*	*39-120*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0156 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0156-BLK1)					Prepared: 07-Sep-2019 Analyzed: 11-Sep-2019 16:52						
Aroclor 1016	ND	1.6	4.0	ug/kg							U
Aroclor 1221	ND	1.6	4.0	ug/kg							U
Aroclor 1232	ND	1.6	4.0	ug/kg							U
Aroclor 1242	ND	1.6	4.0	ug/kg							U
Aroclor 1248	ND	1.6	4.0	ug/kg							U
Aroclor 1254	ND	1.6	4.0	ug/kg							U
Aroclor 1260	ND	0.6	4.0	ug/kg							U
Aroclor 1262	ND	0.6	4.0	ug/kg							U
Aroclor 1268	ND	0.6	4.0	ug/kg							U
Surrogate: Decachlorobiphenyl	6.59			ug/kg	*8.00*		*82.4*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.84			ug/kg	*8.00*		*85.5*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.42			ug/kg	*8.00*		*80.2*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.71			ug/kg	*8.00*		*71.4*	*44-120*			
LCS (BHI0156-BS1)					Prepared: 07-Sep-2019 Analyzed: 11-Sep-2019 17:13						
Aroclor 1016	88.3	1.6	4.0	ug/kg	101		87.6	56-120			
Aroclor 1260	74.8	0.6	4.0	ug/kg	101		74.2	58-120			
Surrogate: Decachlorobiphenyl	6.59			ug/kg	*8.00*		*82.3*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.89			ug/kg	*8.00*		*86.1*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.43			ug/kg	*8.00*		*80.3*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.81			ug/kg	*8.00*		*72.6*	*44-120*			
LCS Dup (BHI0156-BSD1)					Prepared: 07-Sep-2019 Analyzed: 11-Sep-2019 17:34						
Aroclor 1016	90.4	1.6	4.0	ug/kg	101		89.7	56-120	2.29	30	
Aroclor 1260	77.1	0.6	4.0	ug/kg	101		76.5	58-120	2.95	30	
Surrogate: Decachlorobiphenyl	6.66			ug/kg	*8.00*		*83.3*	*40-126*			
Surrogate: Tetrachlorometaxylene	7.03			ug/kg	*8.00*		*87.9*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.45			ug/kg	*8.00*		*80.7*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.91			ug/kg	*8.00*		*73.9*	*44-120*			
Matrix Spike (BHI0156-MS1)		**Source: 19I0008-18**			Prepared: 07-Sep-2019 Analyzed: 12-Sep-2019 00:14						
Aroclor 1016	77.1	1.6	4.0	ug/kg	101	ND	76.3	56-120			
Aroclor 1260	189	0.6	4.0	ug/kg	101	153	35.1	58-120			*
Surrogate: Decachlorobiphenyl	*NRS*			ug/kg	*8.00*		*NRS*	*40-126*			*NRS, P1*

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0156 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BHI0156-MS1)		**Source: 19I0008-18**			Prepared: 07-Sep-2019	Analyzed: 12-Sep-2019 00:14					
Surrogate: Tetrachlorometaxylene	4.44			ug/kg	*8.00*		*55.5*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.98			ug/kg	*8.00*		*74.8*	*40-126*			*P1*
Surrogate: Tetrachlorometaxylene [2C]	4.82			ug/kg	*8.00*		*60.3*	*44-120*			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Matrix Spike Dup (BHI0156-MSD1)		**Source: 19I0008-18**			Prepared: 07-Sep-2019	Analyzed: 12-Sep-2019 00:35					
Aroclor 1016	75.1	1.6	4.0	ug/kg	101	ND	74.4	56-120	2.68	30	
Aroclor 1260	188	0.6	4.0	ug/kg	101	153	34.2	58-120	0.49	30	*
Surrogate: Decachlorobiphenyl	*NRS*			ug/kg	*8.00*		*NRS*	*40-126*			*NRS*
Surrogate: Tetrachlorometaxylene	4.51			ug/kg	*8.00*		*56.4*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.59			ug/kg	*8.00*		*69.8*	*40-126*			*P1*
Surrogate: Tetrachlorometaxylene [2C]	4.89			ug/kg	*8.00*		*61.1*	*44-120*			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Reference (BHI0156-SRM1)					Prepared: 07-Sep-2019	Analyzed: 12-Sep-2019 08:38					
Aroclor 1254	5690	195	500	ug/kg	5930		96.0	41.3-158.7			D
Surrogate: Decachlorobiphenyl	95.1			ug/kg	*100*		*95.1*	*40-126*			
Surrogate: Tetrachlorometaxylene	91.3			ug/kg	*100*		*91.3*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	96.2			ug/kg	*100*		*96.2*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	98.8			ug/kg	*100*		*98.8*	*44-120*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0161 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0161-BLK1)					Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 19:48						
Aroclor 1016	ND	1.6	4.0	ug/kg							U
Aroclor 1221	ND	1.6	4.0	ug/kg							U
Aroclor 1232	ND	1.6	4.0	ug/kg							U
Aroclor 1242	ND	1.6	4.0	ug/kg							U
Aroclor 1248	ND	1.6	4.0	ug/kg							U
Aroclor 1254	ND	1.6	4.0	ug/kg							U
Aroclor 1260	ND	0.6	4.0	ug/kg							U
Aroclor 1262	ND	0.6	4.0	ug/kg							U
Aroclor 1268	ND	0.6	4.0	ug/kg							U
Surrogate: Decachlorobiphenyl	6.31			ug/kg	*8.00*		*78.9*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.52			ug/kg	*8.00*		*81.5*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.62			ug/kg	*8.00*		*70.2*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.33			ug/kg	*8.00*		*66.6*	*44-120*			
LCS (BHI0161-BS1)					Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 20:09						
Aroclor 1016	93.1	1.6	4.0	ug/kg	101		92.4	56-120			
Aroclor 1260	79.1	0.6	4.0	ug/kg	101		78.5	58-120			
Surrogate: Decachlorobiphenyl	6.83			ug/kg	*8.00*		*85.4*	*40-126*			
Surrogate: Tetrachlorometaxylene	7.19			ug/kg	*8.00*		*89.9*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.29			ug/kg	*8.00*		*78.6*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.72			ug/kg	*8.00*		*71.6*	*44-120*			
LCS Dup (BHI0161-BSD1)					Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 20:30						
Aroclor 1016	94.6	1.6	4.0	ug/kg	101		93.9	56-120	1.57	30	
Aroclor 1260	80.5	0.6	4.0	ug/kg	101		79.8	58-120	1.72	30	
Surrogate: Decachlorobiphenyl	6.67			ug/kg	*8.00*		*83.4*	*40-126*			
Surrogate: Tetrachlorometaxylene	7.05			ug/kg	*8.00*		*88.1*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.34			ug/kg	*8.00*		*79.3*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	6.01			ug/kg	*8.00*		*75.2*	*44-120*			
Duplicate (BHI0161-DUP1)		**Source: 19I0008-25**			Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 20:51						
Aroclor 1016	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1221	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1232	ND	1.6	4.0	ug/kg		ND					U

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0161 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BHI0161-DUP1)		**Source: 19I0008-25**		Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 20:51							
Aroclor 1242	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1248	3.0	1.6	4.0	ug/kg		2.2			28.00	30	J
Aroclor 1254	6.9	1.6	4.0	ug/kg		4.6			39.90	30	*
Aroclor 1260	4.3	0.6	4.0	ug/kg		4.1			5.29	30	
Aroclor 1262	ND	0.6	4.0	ug/kg		ND					U
Aroclor 1268	ND	0.6	4.0	ug/kg		ND					U
Surrogate: Decachlorobiphenyl	5.99			ug/kg	*7.97*		*75.2*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.59			ug/kg	*7.97*		*70.2*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.18			ug/kg	*7.97*		*65.0*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.08			ug/kg	*7.97*		*63.7*	*44-120*			
Matrix Spike (BHI0161-MS1)		**Source: 19I0008-40**		Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 21:12							
Aroclor 1016	73.8	1.6	4.0	ug/kg	101	ND	73.2	56-120			
Aroclor 1260	134	0.6	4.0	ug/kg	101	83.3	50.2	58-120			*
Surrogate: Decachlorobiphenyl	6.50			ug/kg	*8.00*		*81.3*	*40-126*			
Surrogate: Tetrachlorometaxylene	4.69			ug/kg	*8.00*		*58.6*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.33			ug/kg	*8.00*		*66.7*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	4.88			ug/kg	*8.00*		*61.0*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0161-MSD1)		**Source: 19I0008-40**		Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 21:33							
Aroclor 1016	76.2	1.6	4.0	ug/kg	101	ND	75.4	56-120	3.18	30	
Aroclor 1260	142	0.6	4.0	ug/kg	101	83.3	58.1	58-120	6.29	30	
Surrogate: Decachlorobiphenyl	6.93			ug/kg	*8.00*		*86.7*	*40-126*			
Surrogate: Tetrachlorometaxylene	4.97			ug/kg	*8.00*		*62.2*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	4.89			ug/kg	*8.00*		*61.2*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	4.83			ug/kg	*8.00*		*60.4*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Reference (BHI0161-SRM1)				Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 21:54							
Aroclor 1254	4280	780	2000	ug/kg	5930		72.1	41.3-158.7			D
Surrogate: Decachlorobiphenyl	113			ug/kg	*100*		*D1*	*40-126*			*D1*
Surrogate: Tetrachlorometaxylene	80.5			ug/kg	*100*		*D1*	*44-120*			*D1*
Surrogate: Decachlorobiphenyl [2C]	101			ug/kg	*100*		*D1*	*40-126*			*D1*

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0161 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Reference (BHI0161-SRM1)					Prepared: 08-Sep-2019 Analyzed: 10-Sep-2019 21:54						
Surrogate: Tetrachlorometaxylene [2C]	98.4			ug/kg	*100*		*D1*	*44-120*			*D1*

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0175 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0175-BLK1)					Prepared: 09-Sep-2019	Analyzed: 12-Sep-2019 23:10					
Aroclor 1016	ND	1.6	4.0	ug/kg							U
Aroclor 1221	ND	1.6	4.0	ug/kg							U
Aroclor 1232	ND	1.6	4.0	ug/kg							U
Aroclor 1242	ND	1.6	4.0	ug/kg							U
Aroclor 1248	ND	1.6	4.0	ug/kg							U
Aroclor 1254	ND	1.6	4.0	ug/kg							U
Aroclor 1260	ND	0.6	4.0	ug/kg							U
Aroclor 1262	ND	0.6	4.0	ug/kg							U
Aroclor 1268	ND	0.6	4.0	ug/kg							U
Surrogate: Decachlorobiphenyl	6.97			ug/kg	*8.00*		*87.2*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.56			ug/kg	*8.00*		*82.0*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.71			ug/kg	*8.00*		*83.9*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	6.09			ug/kg	*8.00*		*76.1*	*44-120*			
LCS (BHI0175-BS1)					Prepared: 09-Sep-2019	Analyzed: 12-Sep-2019 23:31					
Aroclor 1016	89.7	1.6	4.0	ug/kg	101		89.0	56-120			
Aroclor 1260	80.4	0.6	4.0	ug/kg	101		79.8	58-120			
Surrogate: Decachlorobiphenyl	6.71			ug/kg	*8.00*		*83.9*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.65			ug/kg	*8.00*		*83.2*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.53			ug/kg	*8.00*		*81.6*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.82			ug/kg	*8.00*		*72.7*	*44-120*			
LCS Dup (BHI0175-BSD1)					Prepared: 09-Sep-2019	Analyzed: 12-Sep-2019 23:52					
Aroclor 1016	88.9	1.6	4.0	ug/kg	101		88.2	56-120	4.51	30	
Aroclor 1260	82.1	0.6	4.0	ug/kg	101		81.4	58-120	8.27	30	
Surrogate: Decachlorobiphenyl	6.66			ug/kg	*8.00*		*83.3*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.17			ug/kg	*8.00*		*77.1*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.90			ug/kg	*8.00*		*86.3*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.66			ug/kg	*8.00*		*70.7*	*44-120*			
Duplicate (BHI0175-DUP1)		**Source: 19I0008-57**			Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 00:50					
Aroclor 1016	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1221	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1232	ND	1.6	4.0	ug/kg		ND					U

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0175 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BHI0175-DUP1)		**Source: 19I0008-57**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 00:50							
Aroclor 1242	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1248	5.5	1.6	4.0	ug/kg		5.9			5.61	30	
Aroclor 1254	22.6	1.6	4.0	ug/kg		23.8			5.52	30	
Aroclor 1260	26.6	0.6	4.0	ug/kg		33.6			23.00	30	
Aroclor 1262	ND	0.6	4.0	ug/kg		ND					U
Aroclor 1268	ND	0.6	4.0	ug/kg		ND					U
Surrogate: Decachlorobiphenyl	8.64			ug/kg	*8.00*		*108*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.14			ug/kg	*8.00*		*64.3*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	7.15			ug/kg	*8.00*		*89.4*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.80			ug/kg	*8.00*		*72.6*	*44-120*			
Matrix Spike (BHI0175-MS1)		**Source: 19I0008-56**		Prepared: 09-Sep-2019 Analyzed: 15-Sep-2019 23:47							
Aroclor 1016	84.3	1.7	4.4	ug/kg	112	ND	75.5	56-120			
Aroclor 1260	310	0.7	4.4	ug/kg	112	374	-57.4	58-120			*, E
Surrogate: Decachlorobiphenyl	*NRS*			ug/kg	*8.86*		*NRS*	*40-126*			*NRS*
Surrogate: Tetrachlorometaxylene	5.87			ug/kg	*8.86*		*66.3*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	*NRS*			ug/kg	*8.86*		*NRS*	*40-126*			*NRS*
Surrogate: Tetrachlorometaxylene [2C]	6.44			ug/kg	*8.86*		*72.7*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0175-MSD1)		**Source: 19I0008-56**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 00:08							
Aroclor 1016	81.4	1.7	4.4	ug/kg	112	ND	72.8	56-120	3.54	30	
Aroclor 1260	314	0.7	4.4	ug/kg	112	374	-53.5	58-120	1.41	30	*, E
Surrogate: Decachlorobiphenyl	18.4			ug/kg	*8.86*		*208*	*40-126*			*
Surrogate: Tetrachlorometaxylene	5.63			ug/kg	*8.86*		*63.6*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	14.8			ug/kg	*8.86*		*167*	*40-126*			*
Surrogate: Tetrachlorometaxylene [2C]	6.22			ug/kg	*8.86*		*70.2*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Reference (BHI0175-SRM1)				Prepared: 09-Sep-2019 Analyzed: 13-Sep-2019 00:13							
Aroclor 1254	4360	78.0	200	ug/kg	5930		73.5	41.3-158.7			
Surrogate: Decachlorobiphenyl	80.1			ug/kg	*100*		*80.1*	*40-126*			
Surrogate: Tetrachlorometaxylene	73.6			ug/kg	*100*		*73.6*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	78.0			ug/kg	*100*		*78.0*	*40-126*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0175 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Reference (BHI0175-SRM1)					Prepared: 09-Sep-2019	Analyzed: 13-Sep-2019 00:13					
Surrogate: Tetrachlorometaxylene [2C]	69.8			ug/kg	*100*		*69.8*	*44-120*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0176 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0176-BLK1)					Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 02:55					
Aroclor 1016	ND	1.6	4.0	ug/kg							U
Aroclor 1221	ND	1.6	4.0	ug/kg							U
Aroclor 1232	ND	1.6	4.0	ug/kg							U
Aroclor 1242	ND	1.6	4.0	ug/kg							U
Aroclor 1248	ND	1.6	4.0	ug/kg							U
Aroclor 1254	ND	1.6	4.0	ug/kg							U
Aroclor 1260	ND	0.6	4.0	ug/kg							U
Aroclor 1262	ND	0.6	4.0	ug/kg							U
Aroclor 1268	ND	0.6	4.0	ug/kg							U
Surrogate: Decachlorobiphenyl	6.37			ug/kg	*8.00*		*79.7*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.87			ug/kg	*8.00*		*73.3*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.43			ug/kg	*8.00*		*67.9*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.41			ug/kg	*8.00*		*67.6*	*44-120*			
LCS (BHI0176-BS1)					Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 03:16					
Aroclor 1016	86.8	1.6	4.0	ug/kg	101		86.1	56-120			
Aroclor 1260	82.5	0.6	4.0	ug/kg	101		81.8	58-120			
Surrogate: Decachlorobiphenyl	7.03			ug/kg	*8.00*		*87.9*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.45			ug/kg	*8.00*		*80.7*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.28			ug/kg	*8.00*		*78.5*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.94			ug/kg	*8.00*		*74.3*	*44-120*			
LCS Dup (BHI0176-BSD1)					Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 03:37					
Aroclor 1016	88.9	1.6	4.0	ug/kg	101		88.2	56-120	2.36	30	
Aroclor 1260	79.9	0.6	4.0	ug/kg	101		79.2	58-120	3.18	30	
Surrogate: Decachlorobiphenyl	6.78			ug/kg	*8.00*		*84.7*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.54			ug/kg	*8.00*		*81.7*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.13			ug/kg	*8.00*		*76.6*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.88			ug/kg	*8.00*		*73.6*	*44-120*			
Duplicate (BHI0176-DUP1)		**Source: 19I0008-71**			Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 08:52					
Aroclor 1016	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1221	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1232	ND	1.6	4.0	ug/kg		ND					U

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0176 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BHI0176-DUP1)		**Source: 19I0008-71**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 08:52							
Aroclor 1242	ND	1.6	4.0	ug/kg		ND					U
Aroclor 1248	58.7	1.6	4.0	ug/kg		60.1			2.45	30	
Aroclor 1254	99.5	1.6	4.0	ug/kg		72.1			31.90	30	*
Aroclor 1260	91.3	0.6	4.0	ug/kg		83.5			8.96	30	
Aroclor 1262	ND	0.6	4.0	ug/kg		ND					U
Aroclor 1268	ND	0.6	4.0	ug/kg		ND					U
Surrogate: Decachlorobiphenyl	7.64			ug/kg	*7.97*		*95.9*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.49			ug/kg	*7.97*		*68.9*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.52			ug/kg	*7.97*		*81.9*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.76			ug/kg	*7.97*		*72.3*	*44-120*			
Matrix Spike (BHI0176-MS1)		**Source: 19I0008-69**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 06:04							
Aroclor 1016	86.2	1.5	3.9	ug/kg	98.9	ND	87.2	56-120			
Aroclor 1260	72.9	0.6	3.9	ug/kg	98.9	ND	73.7	58-120			
Surrogate: Decachlorobiphenyl	6.67			ug/kg	*7.85*		*85.0*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.48			ug/kg	*7.85*		*82.5*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.20			ug/kg	*7.85*		*79.0*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.92			ug/kg	*7.85*		*75.4*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike (BHI0176-MS2)		**Source: 19I0008-70**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 07:49							
Aroclor 1016	104	1.6	4.0	ug/kg	101	ND	103	56-120			
Aroclor 1260	385	0.6	4.0	ug/kg	101	413	-27.7	58-120			*, E
Surrogate: Decachlorobiphenyl	8.04			ug/kg	*7.99*		*101*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.23			ug/kg	*7.99*		*65.4*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	6.59			ug/kg	*7.99*		*82.5*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.63			ug/kg	*7.99*		*70.5*	*44-120*			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0176-MSD1)		**Source: 19I0008-69**		Prepared: 09-Sep-2019 Analyzed: 16-Sep-2019 06:25							
Aroclor 1016	81.0	1.5	3.9	ug/kg	99.2	ND	81.7	56-120	6.23	30	
Aroclor 1260	64.5	0.6	3.9	ug/kg	99.2	ND	65.1	58-120	12.10	30	
Surrogate: Decachlorobiphenyl	6.31			ug/kg	*7.87*		*80.1*	*40-126*			
Surrogate: Tetrachlorometaxylene	6.71			ug/kg	*7.87*		*85.3*	*44-120*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Aroclor PCB - Quality Control

Batch BHI0176 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BHI0176-MSD1)		**Source: 19I0008-69**			Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 06:25					
Surrogate: Decachlorobiphenyl [2C]	5.47			ug/kg	*7.87*		*69.5*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.44			ug/kg	*7.87*		*69.1*	*44-120*			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Matrix Spike Dup (BHI0176-MSD2)		**Source: 19I0008-70**			Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 08:10					
Aroclor 1016	115	1.5	4.0	ug/kg	99.9	ND	115	56-120	9.96	30	
Aroclor 1260	407	0.6	4.0	ug/kg	99.9	413	-6.0	58-120	5.55	30	*, E
Surrogate: Decachlorobiphenyl	8.55			ug/kg	*7.92*		*108*	*40-126*			
Surrogate: Tetrachlorometaxylene	5.23			ug/kg	*7.92*		*66.0*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	5.78			ug/kg	*7.92*		*73.0*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	5.58			ug/kg	*7.92*		*70.4*	*44-120*			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Reference (BHI0176-SRM1)					Prepared: 09-Sep-2019	Analyzed: 16-Sep-2019 03:58					
Aroclor 1254	4770	75.7	194	ug/kg	5930		80.4	41.3-158.7			
Surrogate: Decachlorobiphenyl	82.9			ug/kg	*97.1*		*85.4*	*40-126*			
Surrogate: Tetrachlorometaxylene	70.3			ug/kg	*97.1*		*72.4*	*44-120*			
Surrogate: Decachlorobiphenyl [2C]	79.1			ug/kg	*97.1*		*81.5*	*40-126*			
Surrogate: Tetrachlorometaxylene [2C]	88.0			ug/kg	*97.1*		*90.7*	*44-120*			

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0119 - No Prep Wet Chem

Instrument: TOC-LCSH Analyst: DJM

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0119-BLK1)					Prepared: 05-Sep-2019 Analyzed: 05-Sep-2019 13:38						
Total Organic Carbon	ND	0.50	0.50	mg/L							U
LCS (BHI0119-BS1)					Prepared: 05-Sep-2019 Analyzed: 05-Sep-2019 14:05						
Total Organic Carbon	19.18	0.50	0.50	mg/L	20.00		95.9	90-110			
LCS Dup (BHI0119-BSD1)					Prepared: 05-Sep-2019 Analyzed: 05-Sep-2019 14:25						
Total Organic Carbon	19.37	0.50	0.50	mg/L	20.00		96.9	90-110	0.99	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0179 - No Prep Wet Chem

Instrument: TOC Cube Analyst: CDE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0179-BLK1)					Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 08:54					
Total Organic Carbon	ND	0.02	0.02	%							U
LCS (BHI0179-BS1)					Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 09:24					
Total Organic Carbon	45.3	0.02	0.02	%	44.4		102	80-120			
LCS Dup (BHI0179-BSD1)					Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 09:55					
Total Organic Carbon	42.0	0.02	0.02	%	44.4		94.5	80-120	7.48	20	
Duplicate (BHI0179-DUP1)		**Source: 19I0008-01**			Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 10:56					
Total Organic Carbon	0.14	0.02	0.02	%		0.12			20.50	20	L
Matrix Spike (BHI0179-MS1)		**Source: 19I0008-01**			Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 11:26					
Total Organic Carbon	0.92	0.02	0.02	%	0.771	0.12	104	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0179-MSD1)		**Source: 19I0008-01**			Prepared: 08-Sep-2019	Analyzed: 11-Sep-2019 11:57					
Total Organic Carbon	0.97	0.02	0.02	%	0.767	0.12	112	75-125	6.00	20	

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0180 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0180-BLK1)				Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:06							
Total Solids	ND	0.04	0.04	%							U
Duplicate (BHI0180-DUP1)		**Source: 19I0008-01**		Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:06							
Total Solids	79.27	0.04	0.04	%		79.35			0.10	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0181 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0181-BLK1)					Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:24						
Total Solids	ND	0.04	0.04	%							U
Duplicate (BHI0181-DUP1)		**Source: 19I0008-40**			Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:24						
Total Solids	51.89	0.04	0.04	%		52.55			1.28	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0182 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0182-BLK1)				Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:36							
Total Solids	ND	0.04	0.04	%							U
Duplicate (BHI0182-DUP1)		**Source: 19I0008-56**		Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 23:36							
Total Solids	59.78	0.04	0.04	%		59.24			0.89	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0183 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0183-BLK1)					Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 12:12						
Total Solids	ND	0.04	0.04	%							U
Duplicate (BHI0183-DUP1)		**Source: 19I0008-64**			Prepared: 08-Sep-2019 Analyzed: 08-Sep-2019 12:12						
Total Solids	65.36	0.04	0.04	%		63.40			3.05	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0274 - No Prep Wet Chem

Instrument: TOC Cube Analyst: CDE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0274-BLK1)					Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 00:41						
Total Organic Carbon	ND	0.02	0.02	%							U
LCS (BHI0274-BS1)					Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 01:12						
Total Organic Carbon	42.2	0.02	0.02	%	44.4		94.9	80-120			
LCS Dup (BHI0274-BSD1)					Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 19:30						
Total Organic Carbon	43.2	0.02	0.02	%	44.4		97.2	80-120	2.39	20	
Duplicate (BHI0274-DUP1)		**Source: 19I0008-50**			Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 22:03						
Total Organic Carbon	3.98	0.02	0.02	%		4.06			1.96	20	
Matrix Spike (BHI0274-MS1)		**Source: 19I0008-50**			Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 22:33						
Total Organic Carbon	5.10	0.02	0.02	%	1.10	4.06	94.3	75-125			E

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0274-MSD1)		**Source: 19I0008-50**			Prepared: 10-Sep-2019 Analyzed: 12-Sep-2019 23:04						
Total Organic Carbon	5.21	0.02	0.02	%	1.11	4.06	104	75-125	2.14	20	E

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0334 - No Prep Wet Chem

Instrument: TOC Cube Analyst: CDE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0334-BLK1)					Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 14:22						
Total Organic Carbon	ND	0.02	0.02	%							U
LCS (BHI0334-BS1)					Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 14:53						
Total Organic Carbon	44.5	0.02	0.02	%	44.4		100	80-120			
LCS Dup (BHI0334-BSD1)					Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 15:23						
Total Organic Carbon	44.3	0.02	0.02	%	44.4		99.8	80-120	0.25	20	
Duplicate (BHI0334-DUP1)		**Source: 19I0008-40**			Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 22:31						
Total Organic Carbon	3.08	0.02	0.02	%		3.11			0.92	20	
Matrix Spike (BHI0334-MS1)		**Source: 19I0008-40**			Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 23:01						
Total Organic Carbon	4.37	0.02	0.02	%	1.09	3.11	116	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHI0334-MSD1)		**Source: 19I0008-40**			Prepared: 11-Sep-2019 Analyzed: 13-Sep-2019 23:32						
Total Organic Carbon	4.20	0.02	0.02	%	1.14	3.11	95.4	75-125	4.13	20	

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0374 - No Prep Wet Chem

Instrument: TOC Cube Analyst: CDE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0374-BLK1)					Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 06:09					
Total Organic Carbon	ND	0.02	0.02	%							U
LCS (BHI0374-BS1)					Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 06:40					
Total Organic Carbon	44.5	0.02	0.02	%	44.4		100	80-120			
LCS Dup (BHI0374-BSD1)					Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 07:10					
Total Organic Carbon	44.8	0.02	0.02	%	44.4		101	80-120	0.57	20	
Duplicate (BHI0374-DUP1)		**Source: 19I0008-18**			Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 08:11					
Total Organic Carbon	2.75	0.02	0.02	%		2.99			8.24	20	H
Matrix Spike (BHI0374-MS1)		**Source: 19I0008-18**			Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 08:42					
Total Organic Carbon	3.36	0.02	0.02	%	1.09	2.99	33.7	75-125			*, H, HC
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Matrix Spike (BHI0374-MS2)		**Source: 19I0008-18**			Prepared: 12-Sep-2019	Analyzed: 16-Sep-2019 17:59					
Total Organic Carbon	5.55	0.02	0.02	%	3.74	2.99	68.4	75-125			*
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Matrix Spike Dup (BHI0374-MSD1)		**Source: 19I0008-18**			Prepared: 12-Sep-2019	Analyzed: 14-Sep-2019 09:12					
Total Organic Carbon	3.22	0.02	0.02	%	0.964	2.99	24.3	75-125	4.03	20	*, H, HC
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
Matrix Spike Dup (BHI0374-MSD2)		**Source: 19I0008-18**			Prepared: 12-Sep-2019	Analyzed: 16-Sep-2019 18:29					
Total Organic Carbon	5.60	0.02	0.02	%	3.38	2.99	77.4	75-125	0.98	20	
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Wet Chemistry - Quality Control

Batch BHI0436 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BHI0436-BLK1)					Prepared: 15-Sep-2019 Analyzed: 15-Sep-2019 23:45						
Total Solids	ND	0.04	0.04	%							U
Duplicate (BHI0436-DUP1)		**Source: 19I0008-18**			Prepared: 15-Sep-2019 Analyzed: 15-Sep-2019 23:45						
Total Solids	59.75	0.04	0.04	%		58.80			1.60	20	

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Certified Analyses included in this Report

Analyte	Certifications
EPA 8082A in Solid	
Aroclor 1016	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1016 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1221	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1221 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1232	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1232 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1242	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1242 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1248	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1248 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1254	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1254 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1260	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1260 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1262	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1262 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1268	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
Aroclor 1268 [2C]	WADOE,DoD-ELAP,NELAP,CALAP,ADEC
EPA 8082A in Water	
Aroclor 1016	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1016 (1)	ADEC,CALAP
Aroclor-1016 (2)	ADEC,CALAP
Aroclor-1016 (3)	ADEC,CALAP
Aroclor-1016 (4)	ADEC,CALAP
Aroclor 1016 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1016 (1) [2C]	ADEC,CALAP
Aroclor-1016 (2) [2C]	ADEC,CALAP
Aroclor-1016 (3) [2C]	ADEC,CALAP
Aroclor-1016 (4) [2C]	ADEC,CALAP
Aroclor 1221	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1221 (1)	ADEC,CALAP
Aroclor-1221 (2)	ADEC,CALAP
Aroclor-1221 (3)	ADEC,CALAP
Aroclor 1221 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1221 (1) [2C]	ADEC,CALAP

Aroclor-1221 (2) [2C]	ADEC,CALAP
Aroclor-1221 (3) [2C]	ADEC,CALAP
Aroclor-1221 (4) [2C]	ADEC,CALAP
Aroclor 1232	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1232 (1)	ADEC,CALAP
Aroclor-1232 (2)	ADEC,CALAP
Aroclor-1232 (3)	ADEC,CALAP
Aroclor-1232 (4)	ADEC,CALAP
Aroclor 1232 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1232 (1) [2C]	ADEC,CALAP
Aroclor-1232 (2) [2C]	ADEC,CALAP
Aroclor-1232 (3) [2C]	ADEC,CALAP
Aroclor-1232 (4) [2C]	ADEC,CALAP
Aroclor 1242	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1242 (1)	ADEC,CALAP
Aroclor-1242 (2)	ADEC,CALAP
Aroclor-1242 (3)	ADEC,CALAP
Aroclor-1242 (4)	ADEC,CALAP
Aroclor 1242 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1242 (1) [2C]	ADEC,CALAP
Aroclor-1242 (2) [2C]	ADEC,CALAP
Aroclor-1242 (3) [2C]	ADEC,CALAP
Aroclor-1242 (4) [2C]	ADEC,CALAP
Aroclor 1248	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1248 (1)	ADEC,CALAP
Aroclor-1248 (2)	ADEC,CALAP
Aroclor-1248 (3)	ADEC,CALAP
Aroclor-1248 (4)	ADEC,CALAP
Aroclor 1248 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1248 (1) [2C]	ADEC,CALAP
Aroclor-1248 (2) [2C]	ADEC,CALAP
Aroclor-1248 (3) [2C]	ADEC,CALAP
Aroclor-1248 (4) [2C]	ADEC,CALAP
Aroclor 1254	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1254 (1)	ADEC,CALAP
Aroclor-1254 (2)	ADEC,CALAP
Aroclor-1254 (3)	ADEC,CALAP
Aroclor-1254 (4)	ADEC,CALAP
Aroclor-1254 (5)	ADEC,CALAP
Aroclor 1254 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE

Aroclor-1254 (1) [2C]	ADEC,CALAP
Aroclor-1254 (2) [2C]	ADEC,CALAP
Aroclor-1254 (3) [2C]	ADEC,CALAP
Aroclor-1254 (4) [2C]	ADEC,CALAP
Aroclor-1254 (5) [2C]	ADEC,CALAP
Aroclor 1260	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1260 (1)	ADEC,CALAP
Aroclor-1260 (2)	ADEC,CALAP
Aroclor-1260 (3)	ADEC,CALAP
Aroclor-1260 (4)	ADEC,CALAP
Aroclor-1260 (5)	ADEC,CALAP
Aroclor 1260 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1260 (1) [2C]	ADEC,CALAP
Aroclor-1260 (2) [2C]	ADEC,CALAP
Aroclor-1260 (3) [2C]	ADEC,CALAP
Aroclor-1260 (4) [2C]	ADEC,CALAP
Aroclor 1262	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1262 (1)	ADEC,CALAP
Aroclor-1262 (2)	ADEC,CALAP
Aroclor-1262 (3)	ADEC,CALAP
Aroclor-1262 (4)	ADEC,CALAP
Aroclor-1262 (5)	ADEC,CALAP
Aroclor 1262 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1262 (1) [2C]	ADEC,CALAP
Aroclor-1262 (2) [2C]	ADEC,CALAP
Aroclor-1262 (3) [2C]	ADEC,CALAP
Aroclor-1262 (4) [2C]	ADEC,CALAP
Aroclor-1262 (5) [2C]	ADEC,CALAP
Aroclor 1268	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1268 (1)	ADEC,CALAP
Aroclor-1268 (2)	ADEC,CALAP
Aroclor-1268 (3)	ADEC,CALAP
Aroclor-1268 (4)	ADEC,CALAP
Aroclor 1268 [2C]	ADEC,CALAP,DoD-ELAP,NELAP,WADOE
Aroclor-1268 (1) [2C]	ADEC,CALAP
Aroclor-1268 (2) [2C]	ADEC,CALAP
Aroclor-1268 (3) [2C]	ADEC,CALAP
Aroclor-1268 (4) [2C]	ADEC,CALAP

EPA 9060A in Water

Pacific Groundwater Group	Project: Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number: Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager: Janet Knox	18-Sep-2019 14:41

Total Organic Carbon DoD-ELAP,WADOE,NELAP

EPA 9060A m in Solid

Total Organic Carbon WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
CALAP	California Department of Public Health CAELAP	2748	06/30/2019
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2020
WADOE	WA Dept of Ecology	C558	06/30/2019
WA-DW	Ecology - Drinking Water	C558	06/30/2019

Pacific Groundwater Group	Project:	Swan Island Lagoon Sediment Investigation	
2377 Eastlake Ave. E. Suite 200	Project Number:	Portland Harbor	**Reported:**
Seattle WA, 98102	Project Manager:	Janet Knox	18-Sep-2019 14:41

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
D1	Surrogate was not detected due to sample extract dilution
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
H	Hold time violation - Hold time was exceeded.
HC	The natural concentration of the spiked analyte is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
J	Estimated concentration value detected below the reporting limit.
L	Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to +/- RL instead of 20% RPD
NRS	This surrogate not reported due to chromatographic interference
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.