



Analytical Resources, Incorporated
Analytical Chemists and Consultants

15 October 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)
19J0044

Associated SDG ID(s)
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.



Chain of Custody Record

Other **ARI 19I0008** **19J0044**

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:		# 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		☒ standard							
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.	Remarks	SDG No.	Sample Specific Notes
L3-SC1b-20to30-82619	8/26/19	1030	S		1	XX		
L3-SC1b-30to40-82619	8/26/19	1035	S		1	XX		
L3-SC1b-00to10-82619	8/26/19	1006	S		1	✓		✓ JP 10/2/19
L3-SC1b-10to20-82619	8/26/19	1007	S		1	✓		✓ JP 10/2/19
	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			
	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 ☐

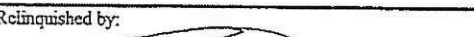
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For _____ Months

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:

~~19I0008~~
19I0044

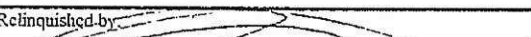
Chain of Custody Record

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		☒ standard								
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.	Archive			
D6-SC1b-20to30-826 19	8/26/19	1245		S	1					
D6-SC1b-30to40-826 19	8/26/19	1300		S	1					
D6-SC1b-40to50-826 19	8/26/19	1445		S	1					
D6-SC1b-50to60-826 19	8/26/19	1450		S	1					
D6-SC1b-60to70-826 19	3/26/19	1530		S	1					
D6-SC1b-70to80-826 19	8/26/19	1540		S	1					
D6-SC1b-80to90-826 19	8/26/19	1655		S	1					
D6-SC1b-90to100-826 19	8/26/19	1700		S	1					
D6-SC1b-100to110-826 19	8/26/19	1740		S	1					
D6-SC1b-110to120-826 19	8/26/19	1750		S	1					
D6-SC1b-10to20-82619	8/26/19	1210		S	1					
411-SC1b-50to60-82619	8/26/19	1500		S	1					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Possible Hazard Identification						Return To Client ☐ Disposal By Lab ☐ Archive For ☒ Months				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown										

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

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:		17 of 6 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		☒ standard								
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:			
J3-SC1b-20to30-82719	8/27/19	1000	S	1			XX			
J3-SC1b-30to40-82719	8/27/19	1005	S	1			XX			
J3-SC1b-40to50-82719	8/27/19	1120	S	1			XX			
J3-SC1b-50to60-82719	8/27/19	1125	S	1			XX			
J3-SC1b-60to70-82719	8/27/19	1130	S	1			XX			
J3-SC1b-70to80-82719	8/27/19	1135	S	1			XX			
J3-SC1b-80to90-82719	8/27/19	1220	S	1			XX			
J3-SC1b-90to100-82719	8/27/19	1225	S	1			XX			
J3-SC1b-10to20-82719	8/27/19	0955	S	1			XX			
J3-SC1b-20to30-82719	8/ /19		S	1						
412-SC1b-20to40-82719	8/27/19	1235	S	1			XX			
	8/ /19		S	1						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____										
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐						☐ Return To Client ☐ Disposal By Lab ☒ Archive For _____ Months				

Relinquished by: 	Company: PGG	Date/Time: 9/3/2019 1210	Received by: 	Company: ARI	Date/Time: 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 AR 19I0008
19J0044

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		☒ standard								
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.	Archive			
J6-SC1b-20to30-8 Z8 19	8/28/19	0920	S	1						
J6-SC1b-30to40-8 Z8 19	8/28/19	0925	S	1						
J6-SC1b-40to50-8 Z8 19	8/28/19	1025	S	1						
J6-SC1b-50to60-8 Z8 19	8/28/19	1030	S	1						
J6-SC1b-60to70-8 Z8 19	8/28/19	1035	S	1						
J6-SC1b-70to80-8 Z8 19	8/28/19	1040	S	1						
J6-SC1b-80to90-8 Z8 19	8/28/19	1155	S	1						
J6-SC1b-90to100-8 Z8 19	8/28/19	1200	S	1						
J6-SC1b-100to110-8 Z8 19	8/28/19	1205	S	1						
J6-SC1b-110to120-8 Z8 19	8/28/19	1210	S	1						
J6-SC1b-00to10-8 Z7 19	8/27/19	1930	S	1						
J6-SC1b-10to20-8 Z7 19	8/27/19	1935	S	1						
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other										
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown						☐ Return To Client ☐ Disposal By Lab ☒ Archive For _____ Months				
Relinquished by: 										
Company: PGG		Date/Time: 9/3/2019 1210		Received by: 		Company: ARI		Date/Time: 9/3/19 1430		
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:

~~19I0008~~ Other ARI 19I0008
19J0044

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:		17 of 6 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		☒ standard								
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:			
R4-SC1b-20to30-8 28 19	8/28/19	1400		S		1				
R4-SC1b-30to40-8 28 19	8/28/19	1405		S		1				
R4-SC1b-40to50-8 28 19	8/28/19	1510		S		1				
R4-SC1b-50to60-8 28 19	8/28/19	1520		S		1				
R4-SC1b-60to70-8 28 19	8/28/19	1530		S		1				
R4-SC1b-70to80-8 28 19	8/28/19	1555		S		1				
R4-SC1b-80to90-8 28 19	8/28/19	1630		S		1				
R4-SC1b-90to100-8 28 19	8/28/19	1640		S		1				
R4-SC1b-10to20-8 28 19										
R4-SC1b-10to20-8 28 19	8/28/19	1355		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							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐							☐ Return To Client ☐ Disposal By Lab ☒ 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: 8	
Jeff Parker & Janet Knox		Tel/Fax:		Lab Contact:		Carrier:		7 of 8 COCs	
Pacific Groundwater Group		Analysis Turnaround Time		8082A Analytical TLC SW9060 Archive		Job No. 2006-00115			
2377 Eastlake Ave E, Seattle WA 98102		standard				SDG No.			
206 329 0141 Phone		TAT if different from Below							
206 329 6968 FAX		☒ standard ☐ 1 week ☐ 2 days ☐ 1 day							
Swan Island Lagoon Sediment Investigation		Site:							
P O #									
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:			
R4-SC1b-100to110-82819	8/28/19	1700		S	1	XX			
R4-SC1b-110to120-82819	8/28/19	1710		S	1	XX			
R4-SC1b-120to130-82819	8/28/19	1820		S	1	XX			
413-SC1b-40to50-82819	8/28/19	1045		S	1	XX			
413-SC1b-130to140-82819	8/28/19	1825		S	1	XX			
413-SC1b-140to150-82819	8/28/19	1830		S	1	XX			
413-SC1b-40to50-82819	8/28/19	1045		S	1	XX			
R4-SC1b-130to140-82819	8/28/19	1825		S	1	XX			
R4-SC1b-140to150-82819	8/28/19	1830		S	1	XX			
	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						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐						☐ Return To Client ☐ Disposal By Lab ☒ Archive For _____ Months			
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:	
		PGG		9/3/2019 1210				9/3/19 1430	
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:	

Other ARI 19I0008
19J0044

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		☒ standard							
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:		
H3-SC1b-20to30-82819	8/28/19	2015	S	1			X	X	
H3-SC1b-30to40-82819	8/29/19	0825	S	1			X	X	
H3-SC1b-40to50-82919	8/29/19	0830	S	1			X	X	
H3-SC1b-50to60-82919	8/29/19	0835	S	1			X	X	
H3-SC1b-60to70-82919	8/29/19	0900	S	1			X	X	
H3-SC1b-70to80-82919	8/29/19	0905	S	1			X	X	
H3-SC1b-80to90-82919	8/29/19	0930	S	1			X	X	
H3-SC1b-90to100-82919	8/29/19	0935	S	1			X	X	
H3-SC1b-100to110-82919	8/29/19	0950	S	1			X	X	
H3-SC1b-00to10-82819	8/28/19	2005	S	1			X	X	JP 1/4/19
H3-SC1b-10-20-82819	8/28/19	2010	S	1			X	X	JP 1/12/19
	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 ☒ Archive For _____ Months									

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	PG6	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:



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SR#:

PAGE _____ OF _____ COC# _____

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Other ~~MT~~ 19I0008
19J0044

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		☒ standard							
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.	Analysis Results	Archival	Sample Specific Notes
J5-SC1b-20to30-8 27 19	8/27/19	1455		S	1			
J5-SC1b-30to40-8 27 19	8/27/19	1500		S	1			
J5-SC1b-40to50-8 27 19	8/27/19	1610		S	1			
J5-SC1b-50to60-8 27 19	8/27/19	1615		S	1			
J5-SC1b-60to70-8 27 19	8/27/19	1620		S	1			
J5-SC1b-70to80-8 27 19	8/27/19	1625		S	1			
J5-SC1b-80to90-8 27 19	8/27/19	1725		S	1			
J5-SC1b-90to100-8 27 19	8/27/19	1730		S	1			
J5-SC1b-100to110-8 27 19	8/27/19	1735		S	1			
J5-SC1b-110to120-8 27 19								
J5-SC1b-00to10-8 27 19	8/27/19	1445		S	1			OK 10/2/19
J5-SC1b-10 to 20-8 27 19	8/27/19	1450		S	1			OK 10/2/19

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 ☒ 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:

1950044

Page 11 of 243 19I0008 ARISample FINAL 18 Sep 2019 1441



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

Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor
Project Manager: Janet Knox

Reported:
15-Oct-2019 14:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L3-SC1b-00to10-82619	19J0044-01	Solid	26-Aug-2019 10:06	03-Sep-2019 14:30
L3-SC1b-10to20-82619	19J0044-02	Solid	26-Aug-2019 10:07	03-Sep-2019 14:30
D6-SC1b-10to20-82619	19J0044-03	Solid	26-Aug-2019 12:10	03-Sep-2019 14:30
J6-SC1b-00to10-82719	19J0044-04	Solid	27-Aug-2019 19:30	03-Sep-2019 14:30
J6-SC1b-10to20-82719	19J0044-05	Solid	27-Aug-2019 19:35	03-Sep-2019 14:30
R4-SC1b-10to20-82819	19J0044-06	Solid	28-Aug-2019 13:55	03-Sep-2019 14:30
H3-SC1b-00to10-82919	19J0044-07	Solid	28-Aug-2019 20:05	03-Sep-2019 14:30
H3-SC1b-10-20-82919	19J0044-08	Solid	28-Aug-2019 20:10	03-Sep-2019 14:30
J5-SC1b-00to10-82719	19J0044-09	Solid	27-Aug-2019 14:45	03-Sep-2019 14:30
J5-SC1b-10to20-82719	19J0044-10	Solid	27-Aug-2019 14:50	03-Sep-2019 14:30



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

Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor
Project Manager: Janet Knox

Reported:
15-Oct-2019 14:30

Work Order Case Narrative

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times for samples that have been frozen.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

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.

Additional Aroclor analyses

Jeff S. Parker

Wed 10/2/2019 2:24 PM

To: Kelly Bottem <kelly.bottem@arilabs.com>

📎 1 attachments (556 KB)
20191002112328460.pdf;

Hi Kelly,

I updated the COCs for the DTNA Sediments job with 10 or so additional Aroclor only analyses (no TOC needed).

I'm also going to hunt down three more of our samples from Test America and have them shipped (I think they are in Sacramento or Nashville). Also for Aroclors.

Thanks,
Jeff

Jeffrey Parker, LG | Environmental Geologist

Pacific Groundwater Group Water Resource & Environmental Consulting

(360) 570-8244 | jparker@pgwg.com | www.pgwg.com

PGG

Pull the Samples from 19I0008
The ones in dark black marked up on
COCs.

log under new job for
pcbs only



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

Project: Swan Island Lagoon Sediment Investigation
Project Number: Portland Harbor
Project Manager: Janet Knox

Reported:
15-Oct-2019 14:30

L3-SC1b-00to10-82619
19J0044-01 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/26/2019 10:06	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/11/2019 22:13	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 19J0044-01 A 01	
	Preparation Batch: BHJ0164	Sample Size: 16 g (wet)	Dry Weight: 12.65 g	
	Prepared: 07-Oct-2019	Final Volume: 2.5 mL	% Solids: 79.04	
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 19J0044-01 A 01	
	Cleanup Batch: CHJ0098	Initial Volume: 2.5 mL		
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL		
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID: 19J0044-01 A 01	
	Cleanup Batch: CHJ0096	Initial Volume: 2.5 mL		
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL		
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID: 19J0044-01 A 01	
	Cleanup Batch: CHJ0097	Initial Volume: 2.5 mL		
	Cleaned: 10-Oct-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	4.8	ug/kg	
Aroclor 1254	11097-69-1	1	1.5	4.0	13.0	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	11.2	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 %	119	%	
Surrogate: Tetrachlorometaxylene				44-120 %	86.4	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	106	%	
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	83.8	%	



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L3-SC1b-10to20-82619
19J0044-02 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/26/2019 10:07	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/11/2019 23:15	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Sample Size: 15.89 g (wet) Final Volume: 2.5 mL	Extract ID: 19J0044-02 A 01	
	Preparation Batch: BHJ0164		Dry Weight: 12.58 g	
	Prepared: 07-Oct-2019		% Solids: 79.15	
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-02 A 01	
	Cleanup Batch: CHJ0098			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-02 A 01	
	Cleanup Batch: CHJ0096			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-02 A 01	
	Cleanup Batch: CHJ0097			
	Cleaned: 10-Oct-2019			

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	5.1	ug/kg	
Aroclor 1254	11097-69-1	1	1.6	4.0	14.5	ug/kg	
Aroclor 1260	11096-82-5	1	0.6	4.0	9.5	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 %	117	%	
Surrogate: Tetrachlorometaxylene				44-120 %	91.1	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	109	%	
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	88.9	%	



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D6-SC1b-10to20-82619
19J0044-03 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/26/2019 12:10	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/12/2019 00:18	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Sample Size: 23.76 g (wet) Final Volume: 2.5 mL	Extract ID: 19J0044-03 A 01	
	Preparation Batch: BHJ0164		Dry Weight: 12.60 g	
	Prepared: 07-Oct-2019		% Solids: 53.02	
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-03 A 01	
	Cleanup Batch: CHJ0098			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-03 A 01	
	Cleanup Batch: CHJ0096			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-03 A 01	
	Cleanup Batch: CHJ0097			
	Cleaned: 10-Oct-2019			

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	323	ug/kg	D
Aroclor 1254	11097-69-1	10	15.5	39.7	1040	ug/kg	D
Aroclor 1260	11096-82-5	10	5.8	39.7	349	ug/kg	D
Aroclor 1262	37324-23-5	10	5.8	39.7	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.8	39.7	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				40-126 %	199	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	77.2	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	110	%	P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	95.0	%	



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J6-SC1b-00to10-82719

19J0044-04 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/27/2019 19:30	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/12/2019 00:39	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Sample Size: 24.06 g (wet) Final Volume: 2.5 mL	Extract ID: 19J0044-04 A 01	
	Preparation Batch: BHJ0164		Dry Weight: 12.54 g	
	Prepared: 07-Oct-2019		% Solids: 52.10	
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-04 A 01	
	Cleanup Batch: CHJ0098			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-04 A 01	
	Cleanup Batch: CHJ0096			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-04 A 01	
	Cleanup Batch: CHJ0097			
	Cleaned: 10-Oct-2019			

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	ND	ug/kg	U
Aroclor 1254	11097-69-1	10	15.6	39.9	720	ug/kg	D
Aroclor 1260	11096-82-5	10	5.9	39.9	444	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
<i>Surrogate: Decachlorobiphenyl</i>				40-126 %	255	%	*, P1
<i>Surrogate: Tetrachlorometaxylene</i>				44-120 %	83.0	%	
<i>Surrogate: Decachlorobiphenyl [2C]</i>				40-126 %	147	%	*, P1
<i>Surrogate: Tetrachlorometaxylene [2C]</i>				44-120 %	100	%	



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J6-SC1b-10to20-82719

19J0044-05 (Solid)

Aroclor PCB

Method: EPA 8082A		Sampled: 08/27/2019 19:35	
Instrument: ECD7 Analyst: JGR		Analyzed: 10/12/2019 01:00	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Extract ID: 19J0044-05 A 01	
	Preparation Batch: BHJ0164	Sample Size: 24.27 g (wet)	Dry Weight: 12.59 g
	Prepared: 07-Oct-2019	Final Volume: 2.5 mL	% Solids: 51.89
Sample Cleanup:	Cleanup Method: Silica Gel	Extract ID: 19J0044-05 A 01	
	Cleanup Batch: CHJ0098	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Extract ID: 19J0044-05 A 01	
	Cleanup Batch: CHJ0096	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur	Extract ID: 19J0044-05 A 01	
	Cleanup Batch: CHJ0097	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	5	7.7	19.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	5	7.7	19.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	5	7.7	19.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	5	7.7	19.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	5	7.7	19.9	84.7	ug/kg	D
Aroclor 1254	11097-69-1	5	7.7	19.9	161	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	19.9	178	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 %	160	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	78.8	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	103	%	P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	88.0	%	



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Reported:
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R4-SC1b-10to20-82819
19J0044-06 (Solid)

Aroclor PCB

Method: EPA 8082A		Sampled: 08/28/2019 13:55	
Instrument: ECD7 Analyst: JGR		Analyzed: 10/12/2019 01:21	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Extract ID: 19J0044-06 A 01	
	Preparation Batch: BHJ0164	Sample Size: 23.94 g (wet)	Dry Weight: 12.55 g
	Prepared: 07-Oct-2019	Final Volume: 2.5 mL	% Solids: 52.44
Sample Cleanup:	Cleanup Method: Silica Gel	Extract ID: 19J0044-06 A 01	
	Cleanup Batch: CHJ0098	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Extract ID: 19J0044-06 A 01	
	Cleanup Batch: CHJ0096	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur	Extract ID: 19J0044-06 A 01	
	Cleanup Batch: CHJ0097	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-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	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	74.8	ug/kg	D
Aroclor 1254	11097-69-1	5	7.8	19.9	157	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	19.9	170	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 %	151	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	75.7	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	98.5	%	P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	88.8	%	



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H3-SC1b-00to10-82919
19J0044-07 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/28/2019 20:05	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/12/2019 01:42	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Sample Size: 23.91 g (wet) Final Volume: 2.5 mL	Extract ID: 19J0044-07 A 01	
	Preparation Batch: BHJ0164		Dry Weight: 12.61 g	
	Prepared: 07-Oct-2019		% Solids: 52.75	
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-07 A 01	
	Cleanup Batch: CHJ0098			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-07 A 01	
	Cleanup Batch: CHJ0096			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-07 A 01	
	Cleanup Batch: CHJ0097			
	Cleaned: 10-Oct-2019			

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	10	15.5	39.6	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.5	39.6	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.5	39.6	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.5	39.6	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.5	39.6	250	ug/kg	P1, D
Aroclor 1254	11097-69-1	10	15.5	39.6	775	ug/kg	D
Aroclor 1260	11096-82-5	10	5.8	39.6	460	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 %	206	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	72.6	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	135	%	*, P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	86.6	%	



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H3-SC1b-10-20-82919

19J0044-08 (Solid)

Aroclor PCB

Method: EPA 8082A		Sampled: 08/28/2019 20:10	
Instrument: ECD7 Analyst: JGR		Analyzed: 10/12/2019 02:02	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Extract ID: 19J0044-08 A 01	
	Preparation Batch: BHJ0164	Sample Size: 23.85 g (wet)	Dry Weight: 12.68 g
	Prepared: 07-Oct-2019	Final Volume: 2.5 mL	% Solids: 53.18
Sample Cleanup:	Cleanup Method: Silica Gel	Extract ID: 19J0044-08 A 01	
	Cleanup Batch: CHJ0098	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Extract ID: 19J0044-08 A 01	
	Cleanup Batch: CHJ0096	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur	Extract ID: 19J0044-08 A 01	
	Cleanup Batch: CHJ0097	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-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	39.4	ND	ug/kg	U
Aroclor 1221	11104-28-2	10	15.4	39.4	ND	ug/kg	U
Aroclor 1232	11141-16-5	10	15.4	39.4	ND	ug/kg	U
Aroclor 1242	53469-21-9	10	15.4	39.4	ND	ug/kg	U
Aroclor 1248	12672-29-6	10	15.4	39.4	ND	ug/kg	U
Aroclor 1254	11097-69-1	10	15.4	39.4	1070	ug/kg	D
Aroclor 1260	11096-82-5	10	5.8	39.4	474	ug/kg	D
Aroclor 1262	37324-23-5	10	5.8	39.4	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.8	39.4	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				40-126 %	238	%	*
Surrogate: Tetrachlorometaxylene				44-120 %	76.5	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	162	%	*
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	88.6	%	



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Reported:
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J5-SC1b-00to10-82719

19J0044-09 (Solid)

Aroclor PCB

Method: EPA 8082A			Sampled: 08/27/2019 14:45	
Instrument: ECD7 Analyst: JGR			Analyzed: 10/12/2019 02:44	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Sample Size: 27.18 g (wet) Final Volume: 2.5 mL	Extract ID: 19J0044-09 A 01	
	Preparation Batch: BHJ0164		Dry Weight: 12.55 g	
	Prepared: 07-Oct-2019		% Solids: 46.19	
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-09 A 01	
	Cleanup Batch: CHJ0098			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-09 A 01	
	Cleanup Batch: CHJ0096			
	Cleaned: 10-Oct-2019			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 2.5 mL Final Volume: 2.5 mL	Extract ID: 19J0044-09 A 01	
	Cleanup Batch: CHJ0097			
	Cleaned: 10-Oct-2019			

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	ND	ug/kg	U
Aroclor 1254	11097-69-1	5	7.8	19.9	320	ug/kg	D
Aroclor 1260	11096-82-5	5	2.9	19.9	279	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 %	151	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	79.5	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	100	%	P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	85.6	%	



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J5-SC1b-10to20-82719
19J0044-10 (Solid)

Aroclor PCB

Method: EPA 8082A		Sampled: 08/27/2019 14:50	
Instrument: ECD7 Analyst: JGR		Analyzed: 10/12/2019 03:05	
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)	Extract ID: 19J0044-10 A 01	
	Preparation Batch: BHJ0164	Sample Size: 24 g (wet)	Dry Weight: 12.59 g
	Prepared: 07-Oct-2019	Final Volume: 2.5 mL	% Solids: 52.47
Sample Cleanup:	Cleanup Method: Silica Gel	Extract ID: 19J0044-10 A 01	
	Cleanup Batch: CHJ0098	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Extract ID: 19J0044-10 A 01	
	Cleanup Batch: CHJ0096	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-2019	Final Volume: 2.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur	Extract ID: 19J0044-10 A 01	
	Cleanup Batch: CHJ0097	Initial Volume: 2.5 mL	
	Cleaned: 10-Oct-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	268	ug/kg	D
Aroclor 1254	11097-69-1	10	15.5	39.7	681	ug/kg	D
Aroclor 1260	11096-82-5	10	5.8	39.7	266	ug/kg	D
Aroclor 1262	37324-23-5	10	5.8	39.7	ND	ug/kg	U
Aroclor 1268	11100-14-4	10	5.8	39.7	ND	ug/kg	U
Surrogate: Decachlorobiphenyl				40-126 %	179	%	*, P1
Surrogate: Tetrachlorometaxylene				44-120 %	77.0	%	
Surrogate: Decachlorobiphenyl [2C]				40-126 %	116	%	P1
Surrogate: Tetrachlorometaxylene [2C]				44-120 %	88.0	%	



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Reported:
15-Oct-2019 14:30

Aroclor PCB - Quality Control

Batch BHJ0164 - 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 (BHJ0164-BLK1)											
						Prepared: 07-Oct-2019 Analyzed: 11-Oct-2019 20:49					
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	8.12			ug/kg	8.00		101	40-126			
Surrogate: Tetrachlorometaxylene	7.26			ug/kg	8.00		90.7	44-120			
Surrogate: Decachlorobiphenyl [2C]	8.43			ug/kg	8.00		105	40-126			
Surrogate: Tetrachlorometaxylene [2C]	6.42			ug/kg	8.00		80.3	44-120			
LCS (BHJ0164-BS1)											
						Prepared: 07-Oct-2019 Analyzed: 11-Oct-2019 21:10					
Aroclor 1016	87.9	1.6	4.0	ug/kg	101		87.2	56-120			
Aroclor 1260	87.8	0.6	4.0	ug/kg	101		87.1	58-120			
Surrogate: Decachlorobiphenyl	8.19			ug/kg	8.00		102	40-126			
Surrogate: Tetrachlorometaxylene	7.13			ug/kg	8.00		89.1	44-120			
Surrogate: Decachlorobiphenyl [2C]	8.51			ug/kg	8.00		106	40-126			
Surrogate: Tetrachlorometaxylene [2C]	6.48			ug/kg	8.00		81.0	44-120			
LCS Dup (BHJ0164-BSD1)											
						Prepared: 07-Oct-2019 Analyzed: 11-Oct-2019 21:31					
Aroclor 1016	96.4	1.6	4.0	ug/kg	101		95.6	56-120	9.23	30	
Aroclor 1260	94.5	0.6	4.0	ug/kg	101		93.7	58-120	7.38	30	
Surrogate: Decachlorobiphenyl	9.40			ug/kg	8.00		118	40-126			
Surrogate: Tetrachlorometaxylene	7.90			ug/kg	8.00		98.7	44-120			
Surrogate: Decachlorobiphenyl [2C]	9.57			ug/kg	8.00		120	40-126			
Surrogate: Tetrachlorometaxylene [2C]	6.98			ug/kg	8.00		87.3	44-120			
Duplicate (BHJ0164-DUP1)											
				Source: 19J0044-08		Prepared: 07-Oct-2019 Analyzed: 12-Oct-2019 02:23					
Aroclor 1016	ND	15.5	39.8	ug/kg		ND					U
Aroclor 1221	ND	15.5	39.8	ug/kg		ND					U
Aroclor 1232	ND	15.5	39.8	ug/kg		ND					U



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Aroclor PCB - Quality Control

Batch BHJ0164 - 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 (BHJ0164-DUP1)		Source: 19J0044-08		Prepared: 07-Oct-2019		Analyzed: 12-Oct-2019 02:23					
Aroclor 1242	ND	15.5	39.8	ug/kg		ND					U
Aroclor 1248	ND	15.5	39.8	ug/kg		ND					U
Aroclor 1254	915	15.5	39.8	ug/kg		1070			15.90	30	D
Aroclor 1260	454	5.9	39.8	ug/kg		474			4.31	30	D
Aroclor 1262	ND	5.9	39.8	ug/kg		ND					U
Aroclor 1268	ND	5.9	39.8	ug/kg		ND					U
Surrogate: Decachlorobiphenyl	21.5			ug/kg	7.96	270		40-126			*
Surrogate: Tetrachlorometaxylene	5.97			ug/kg	7.96	75.0		44-120			
Surrogate: Decachlorobiphenyl [2C]	14.6			ug/kg	7.96	184		40-126			*
Surrogate: Tetrachlorometaxylene [2C]	7.18			ug/kg	7.96	90.2		44-120			

Matrix Spike (BHJ0164-MS1)		Source: 19J0044-01		Prepared: 07-Oct-2019		Analyzed: 11-Oct-2019 22:33					
Aroclor 1016	76.5	1.5	4.0	ug/kg	99.6	ND	76.8	56-120			
Aroclor 1260	111	0.6	4.0	ug/kg	99.6	11.2	100	58-120			
Surrogate: Decachlorobiphenyl	9.23			ug/kg	7.90	117		40-126			
Surrogate: Tetrachlorometaxylene	6.66			ug/kg	7.90	84.2		44-120			
Surrogate: Decachlorobiphenyl [2C]	8.03			ug/kg	7.90	102		40-126			
Surrogate: Tetrachlorometaxylene [2C]	6.86			ug/kg	7.90	86.9		44-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BHJ0164-MSD1)		Source: 19J0044-01		Prepared: 07-Oct-2019		Analyzed: 11-Oct-2019 22:54					
Aroclor 1016	73.5	1.5	4.0	ug/kg	99.6	ND	73.8	56-120	4.05	30	
Aroclor 1260	98.6	0.6	4.0	ug/kg	99.6	11.2	87.8	58-120	11.40	30	
Surrogate: Decachlorobiphenyl	8.84			ug/kg	7.90	112		40-126			
Surrogate: Tetrachlorometaxylene	6.41			ug/kg	7.90	81.2		44-120			
Surrogate: Decachlorobiphenyl [2C]	7.45			ug/kg	7.90	94.2		40-126			
Surrogate: Tetrachlorometaxylene [2C]	6.14			ug/kg	7.90	77.7		44-120			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Reference (BHJ0164-SRM1)				Prepared: 07-Oct-2019		Analyzed: 11-Oct-2019 21:52					
Aroclor 1254	7060	77.2	198	ug/kg	5930		119	41.3-158.7			
Surrogate: Decachlorobiphenyl	111			ug/kg	99.0	112		40-126			
Surrogate: Tetrachlorometaxylene	89.7			ug/kg	99.0	90.6		44-120			
Surrogate: Decachlorobiphenyl [2C]	123			ug/kg	99.0	124		40-126			



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Aroclor PCB - Quality Control

Batch BHJ0164 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Reference (BHJ0164-SRM1)					Prepared: 07-Oct-2019 Analyzed: 11-Oct-2019 21:52				
Surrogate: Tetrachlorometaxylene [2C]	98.4			ug/kg	99.0	99.4	44-120		



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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

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



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Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
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.