USACE - SEATTLE DISTRICT
BRADFORD ISLAND STORMWATER
TM0997

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
USACE – SEATTLE DISTRICT
BRADFORD ISLAND STORMWATER
TM0997

Sample Receipt

The following samples were received on October 18, 2019 and were logged in under Katahdin Analytical Services work order number TM0997 for a hardcopy due date of November 12, 2019.

KATAHDIN Sample No.	USACE Sample Identification
TM0997-1	OF1
TM0997-2	OF1
TM0997-3	OF2
TM0997-4	OF2
TM0997-5	FILTER BLANK

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAP standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz.** This narrative is an integral part of the Report of Analysis.

Organic Analysis

The samples of Work Order TM0997 were analyzed in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I

(1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), and/or for the specific methods listed below or on the Report of Analysis.

Sample TM0997-3 was used for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD), as per client request.

8081B Analysis

Sample TM0997-1 was manually integrated for the target analyte endrin ketone. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample TM0997-1 and 3 had RPD's of the results for the target analytes endrin ketone and oxychlordane, respectively, that were outside of the method acceptance limit of 40%. These analytes are flagged with "J" qualifiers on the reports of analysis (ROA's).

The closing calibration verification standard (file 1MJ10305) had a low response on channel A for the target analyte 4,4'-DDT that resulted in a %D that was outside of the DoD QSM acceptance criteria of ±20%. Since the response was acceptable on channel B, no further action was taken.

8270D SIM Analysis

The closing calibration verification standard (CV) (file N6189) had acceptable responses but was analyzed 24 minutes outside of the 12 hour window. If a closing CV fails, the DoD QSM allows for the analysis of two additional CV's which do not need to be within the 12 hour window. The two additional CVs (files N6190 and N6191) were acceptable and all three CV's are reported.

The closing CV (file N6259) had acceptable responses but was analyzed 24 minutes outside of the 12 hour window. Two additional CVs (files N6260 and N6261) were acceptable and all three CV's are reported.

The LCS WG264605-2 and the MS and MSD WG265605-3 and 5 had low recoveries for the target analyte bis(2-ethylhexyl)phthalate that were outside of the laboratory established acceptance limits. Since the associated samples could not be re-extracted within hold time, no further action was taken.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Metals Analysis

The samples of Katahdin Work Order TM0997 were prepared and analyzed for metals in accordance with USEPA Method 200.8 of "Methods for Chemical Analysis of Water and Wastes", USEPA document EPA-600/4-79-020 and in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods" SW-846. 2nd edition, 1982 (revised

1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, IIIB, IV, & V 1996, 1998, 2004, 2007, & 2014, Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Mass Spectrometric Analysis (ICP-MS)

Aqueous-matrix Katahdin Sample Numbers TM0997-(1-5) were digested for ICP-MS analysis on 10/25/19 (QC Batch MJ25IMW1) in accordance with USEPA Method 200.8. Katahdin Sample Number TM0997-3 was prepared with duplicate matrix-spiked aliquots, per client request. Katahdin Sample Number TM0997-5 was a filter blank. The concentration of zinc in this sample is above the practical quantification limit (PQL), this was confirmed through multiple analyses of the digested and undigested sample. Because the undigested sample also has a concentration of zinc above the PQL, results were reported with no further corrective action.

Analytical results for run QC were included in this data package to reflect the analysis of calcium and magnesium for the samples of Katahdin Work Order TM0997. The analysis of calcium and magnesium was required to calculate hardness results.

ICP-MS analyses of Katahdin Work Order TM0997 sample digestates were performed using an Agilent 7800 ICP-MS spectrometer in accordance with USEPA Method 200.8. Results for all standards and samples are reported using the mean of 3 replicate measurements. All samples were analyzed within holding times and all analytical run QC criteria were met.

The following table indicates which analytes are associated with each internal standard element.

Internal Standard Element	Associated Analytes
Lithium	Beryllium, Boron
Scandium	Sodium, Magnesium, Aluminum, Potassium, Calcium
Germanium or Yttrium	Vanadium, Chromium, Manganese, Iron, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Silver, Cadmium, Strontium, Molybdenum
Terbium	Antimony, Barium, Tin, Tungsten
Bismuth	Lead, Thallium, Thorium, Uranium

Instrument tuning information can also be found in the raw data section in the reports labeled "US EPA Tune Report". For Method 200.8, the relative standard deviation was determined from 5 replicate measurements and the peak width was measured at 10% of the peak height.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Aqueous-matrix Katahdin Sample Numbers TM0997-(1-5) were digested for mercury analysis on 10/28/19 (QC Batch MJ28HGW1) in accordance with USEPA Method 7470. Katahdin Sample Number TM0997-3 was prepared with duplicate matrix-spiked aliquots, per client request.

Mercury analysis of the Katahdin Work Order TM0997 sample digestates were performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Methods 7471B. All analytical run QC criteria were met and all samples were analyzed within holding times.

Matrix QC Summary

The measured recoveries of all analytes in the matrix-spiked aliquots of Katahdin Sample Number TM0997-3 are within the project acceptance criteria.

The relative percent difference between the matrix-spike duplicate analyses of Katahdin Sample Number TM0997-3 is within project acceptance criteria (<20% relative difference between duplicate sample aliquots) for all analytes.

The measured recovery of mercury in the post-digestion spiked aliquot of Katahdin Sample Number TM0997-3 is outside project acceptance criteria (70%-130% recovery of the added element).

The serial dilution analyses of Katahdin Sample Number TM0997-3 are within project acceptance criteria (<5% relative percent difference, if the concentration in the original sample is greater than 50 times the LOD) for all analytes.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I and preparation blanks on Form IIIP have been reported using the laboratory's limits of detection (LOD). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOD is listed in the concentration column. These LOQs, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the LOD is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of Work Order TM0997 were analyzed in accordance with the specific methods

listed on the Report of Analysis.

Analyses for nonfilterable residue were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for dissolved organic carbon were performed according to "Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-020, 1979 Revised 1983, U.S. EPA.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times, and all quality control criteria were met.

Subcontracted Data

Analyses for organotins by the Krone method, DRO and GRO by NWTPH, semivolatile organic compounds by method 8270D Sim, and PCB congeners by Method 1668A were performed by a subcontract laboratory. Please refer to the section of the data package titled Subcontracted Data.

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 above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond
1.9.20

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC.

Sample Receipt Condition Report

Client: USACE	KAS PM: MMM	Sampled By: Client	
Project:	KIMS Entry By: JCB	Delivered By: Fedex	
KAS Work Order#: TM0997	KIMS Review By: MMM	Received By: JCB	
SDG #:	Cooler: 1 of 3	Date/Time Rec.: 10.18.19 0935	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.		✓			Temp (°C): 4.3 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on: n/a					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC.

Sample Receipt Condition Report

Client: USACE	KAS PM: [illegible]	Sampled By: Client	
Project:	KIMS Entry By: SLB	Delivered By: Fedex	
KAS Work Order#: TM0997	KIMS Review By: [illegible]	Received By: JCB	
SDG #:	Cooler: 2 of 3	Date/Time Rec.: 10.18.19 0935	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 1.1 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on: N/A					

* Log-in Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: USACE	KAS PM: MMM	Sampled By: Client
Project:	KIMS Entry By: JCB	Delivered By: Fedex
KAS Work Order#: TM0997	KIMS Review By: MMM	Received By: JCB
SDG #:	Cooler: 3 of 3	Date/Time Rec.: 10/18/19 0935

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3.2 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on: N/a					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Dis. Metals and DOC volume filtered and preserved at lab.

QA-048 – Revision 7 – 09/26/2018

Katahdin ANALYTICAL SERVICES
600 Technology Way
P.O. Box 540
Scarborough, ME 04070
Tel: (207) 874-2400
Fax: (207) 775-4029

TM 0997

Chain of Custody

Client: USACE	Contact: Alison Suess	Phone #: (206) 764-3264	Fax #: ( )
Address: 7734 E Marginal Way S	City: Seattle	State: WA	Zip Code: 98117
Purchase Order #: W912DW19P0020	Proj. Name/No.: Bradford Island Stormwater		Katahdin Quote #:
Bill (if different than above):		Address:	
Sampler (Print/Sign):			Copies To: alison.m.suess@usace.army.mil

LAB USE ONLY — Work Order #: Katahdin Project Number

Remarks:

Shipping Info: FEDEX UPS CLIENT

Airbill No:

Temp C — Temp Blank — Intact — Not Intact

Analysis and Container Type Preservatives

*	Sample Description	Date/Time Collected	Matrix	No. of Containers	Total Metals and Hg (200.8 and 7470A) Filt. N	Dissolved Metals and Hg (200.8 and 7470A) Filt. Y	Organochlorine Pesticides (8081A) Filt. N	SVOCs (8270D-SIM) Filt. N	Dissolved Organic Carbon (SM5310B) Filt. Y	TSS (SM 2540D) Filt. Y / N	Filt. Y / N	Filt. Y / N	Filt. Y / N	Filt. Y / N
	OF-1	10/16/2019 1313	stormwater	8	x	x	x	x	x	x				
	OF-2	10/16/2019 1258	stormwater	8	x	x	x	x	x	x				
	OF-2 MS/MSD	10/16/2019 1258	stormwater	10	x	x	x	x						

COMMENTS: Samples marked with "Y" require lab filtration.

Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
[signature]	10/17/19 0849				
Relinquished By: FEDEX	Date/Time 11.18.19 935	Received By: [signature]	Relinquished By:	Date/Time	Received By:

The terms and conditions on the following page hereof shall govern services, except when a signed contractual agreement exists.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (Ino1)

Oct. 22, 2019
10:50 AM

Login Number: TM0997

Account: USACE003 NoWeb
USACE- Seattle District

Project: USACE-BRADFORD
Bradford Island Stormwater and Catch Ba

Quote/Incoming: USACE-BRADFORD

Primary Report Address:
Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755

Seattle,WA 89124-3755
alison.m.suess@usace.army.mil

Primary Invoice Address:

US Army Corps of Engineers
P.O. Box 3755

Seattle,WA 98124-3755

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.1. U to LOD with J flags. DOC in triplicate. Aqueous pesticide final volume is 2mL and list contains 2,4-DD(x) series and oxy-chlordane. Soil and Aqueous lists are different. 8081B/8270D. Report all runs. Ca and Mg only for Hardness Calc. Supress Ca and Mg results in final report. TSS needs 2mg/L PQL
CHECK NO.	:	
CLIENT PO#	:	W912DW19P0020
CLIENT PROJECT MANAGE	:	Chris Budai
CONTRACT	:	
COOLER TEMPERATURE	:	4.3, 1.1, 3.2
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	WESTGMLDPQLLOD-XLS
LOGIN INITIALS	:	JCB
PM	:	HHM
PROJECT NAME	:	Bradford Island Stormwater
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Email report and invoice to Alison and mariowe.d.laubach@usace.army.mil. Include KAS street address on invoice. Susan, check with PM before invoicing, so we can change the description of EQUIPMENT, FILTERING, & SUPPLIES product codes before sending invoice.

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PB	Verbal Date	Due Date	Mailed
TM0997-1	OF-1	16-OCT-19 13:13	18-OCT-19			12-NOV-19	

SDG ID
SDG STATUS
VERBAL TAT

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY	13-APR-20	250mL Plastic+HNO3	:	
Aqueous	S	E200.8-ARSENIC	13-APR-20	250mL Plastic+HNO3	:	
Aqueous	S	E200.8-CADMIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CALCIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CHROMIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-COPPER	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-LEAD	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-MAGNESIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-NICKEL	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-PREP	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SELENIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SILVER	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ZINC	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	KRONE-ORGANOTIN-SUB	15-NOV-19			
Aqueous	S	ME-DRO-SUB	23-OCT-19	1L N-AmberG+HCl		
Aqueous	S	ME-GRO-SUB	30-OCT-19	40mL Vial+HCl		
Aqueous	S	PCB-CONG-AQ-SUB	23-OCT-19	4oz Glass		
Aqueous	S	SM2340B-HARDNESS	13-APR-20	125mL Plastic+HNO3		
Aqueous	S	SM2540D-TSS-LL	23-OCT-19	250mL Plastic		
Aqueous	S	SW7470-MERCURY	13-NOV-19	500mL Plastic+HNO3		
Aqueous	S	SW8081-S	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270C-TCL-SUB	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	23-OCT-19	1L N-Amber Glass		

SK 10/22/19

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 22, 2019
10:50 AM

Login Number: TM0997

Quote/Incoming: USACE-BRADFORD

Account: USACE003 NoWeb
USACE- Seattle District

Project: USACE-BRADFORD
Bradford Island Stormwater and Catch Ba

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
TM0997-2	OF-1	16-OCT-19 13:13	18-OCT-19			12-NOV-19	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY-DIS	13-APR-20	250mL Plastic+HNO3		DOC in triplicate.
Aqueous	S	E200.8-ARSENIC-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CADMIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CALCIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CHROMIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-COPPER-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-LEAD-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-MAGNESIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-NICKEL-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-PREP	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SELENIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SILVER-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ZINC-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	FILTERING				
Aqueous	S	SM5310B-DOC(1)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(2)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(3)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(AVG)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SW7470-MERCURY-DIS	13-NOV-19	500mL Plastic+HNO3		

TM0997-3	OF-2	16-OCT-19 12:58	18-OCT-19	12-NOV-19

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY	13-APR-20	250mL Plastic+HNO3		MS/MSD on all except TSS
Aqueous	S	E200.8-ARSENIC	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CADMIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CALCIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CHROMIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-COPPER	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-LEAD	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-MAGNESIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-NICKEL	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-PREP	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SELENIUM	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SILVER	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ZINC	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	KRONE-ORGANOTIN-SUB	15-NOV-19			
Aqueous	S	ME-DRO-SUB	23-OCT-19	1L N-AmberG+HCl		
Aqueous	S	ME-GRO-SUB	30-OCT-19	40mL Vial+HCl		
Aqueous	S	PCB-CONG-AQ-SUB	23-OCT-19	4oz Glass		
Aqueous	S	SM2340B-HARDNESS	13-APR-20	125mL Plastic+HNO3		
Aqueous	S	SM2540D-TSS-LL	23-OCT-19	250mL Plastic		
Aqueous	S	SW7470-MERCURY	13-NOV-19	500mL Plastic+HNO3		
Aqueous	S	SW8081-S	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270C-TCL-SUB	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	23-OCT-19	1L N-Amber Glass		

10/22/19

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lnc1)

Oct. 22, 2019
10:50 AM

Login Number: TM0997

Quote/Incoming: USACE-BRADFORD

Account: USACE003 NoWeb
USACE- Seattle District

Project: USACE-BRADFORD
Bradford Island Stormwater and Catch Ba

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
TM0997-4	OF-2	16-OCT-19 12:58	18-OCT-19			12-NOV-19	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY-DIS	13-APR-20	250mL Plastic+HNO3		DOC in triplicate.
Aqueous	S	E200.8-ARSENIC-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CADMIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CALCIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CHROMIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-COPPER-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-LEAD-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-MAGNESIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-NICKEL-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-PREP	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SELENIUM-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SILVER-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ZINC-DIS	13-APR-20	250mL Plastic+HNO3		
Aqueous	S	FILTERING				
Aqueous	S	SM5310B-DOC(1)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(2)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(3)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(AVG)	13-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SW7470-MERCURY-DIS	13-NOV-19	500mL Plastic+HNO3		

TM0997-5	FILTER BLANK	18-OCT-19 12:00	18-OCT-19			12-NOV-19	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ARSENIC-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CADMIUM-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CALCIUM-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-CHROMIUM-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-COPPER-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-LEAD-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-MAGNESIUM-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-NICKEL-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-PREP	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SELENIUM-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-SILVER-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	E200.8-ZINC-DIS	15-APR-20	250mL Plastic+HNO3		
Aqueous	S	SM5310B-DOC(1)	15-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(2)	15-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(3)	15-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SM5310B-DOC(AVG)	15-NOV-19	40 mL Vial+H2SO4		
Aqueous	S	SW7470-MERCURY-DIS	15-NOV-19	500mL Plastic+HNO3		

TM0997-6	OF2 MS CHARGE	16-OCT-19 12:58	18-OCT-19			12-NOV-19	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY	13-APR-20	250mL Plastic+HNO3		Logged in for billing only
Aqueous	S	KRONE-ORGANOTIN-SUB	15-NOV-19			
Aqueous	S	ME-DRO-SUB	23-OCT-19	1L N-AmberG+HCl		
Aqueous	S	ME-GRO-SUB	30-OCT-19	40mL Vial+HCl		
Aqueous	S	PCB-CONG-AQ-SUB	23-OCT-19	4oz Glass		
Aqueous	S	SW7470-MERCURY	13-NOV-19	500mL Plastic+HNO3		
Aqueous	S	SW8081-S	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270C-TCL-SUB	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	23-OCT-19	1L N-Amber Glass		

SK 10/22/19

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 22, 2019
10:50 AM

Login Number: TM0997 **Quote/Incoming:** USACE-BRADFORD

Account: USACE003 NoWeb
USACE- Seattle District

Project: USACE-BRADFORD
Bradford Island Stormwater and Catch Ba

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
TM0997-7	OF2 MSD CHARGE	16-OCT-19 12:58	18-OCT-19			12-NOV-19	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E200.8-ANTIMONY	13-APR-20	250mL Plastic+HNO3		Logged in for billing only
Aqueous	S	KRONE-ORGANOTIN-SUB	15-NOV-19			
Aqueous	S	ME-DRO-SUB	23-OCT-19	1L N-AmberG+HCl		
Aqueous	S	ME-GRO-SUB	30-OCT-19	40mL Vial+HCl		
Aqueous	S	PCB-CONG-AQ-SUB	23-OCT-19	4oz Glass		
Aqueous	S	SW7470-MERCURY	13-NOV-19	500mL Plastic+HNO3		
Aqueous	S	SW8081-S	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270C-TCL-SUB	23-OCT-19	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	23-OCT-19	1L N-Amber Glass		

Total Samples: *7* ***Total Analyses:*** *120*

10/22/19

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: USACE- Seattle District
Lab ID: TM0997-1
Client ID: OF-1
Project: Bradford Island Stormwater
SDG: TM0997
Lab File ID: N6188.D

Sample Date: 16-OCT-19
Received Date: 18-OCT-19
Extract Date: 21-OCT-19
Extracted By: AC/MP
Extraction Method: SW846 3510C
Lab Prep Batch: WG264605

Analysis Date: 26-NOV-19
Analyst: JCG/BF
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 14-DEC-19

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Di-N-Butylphthalate	U	1.0	ug/L	1	2	2.0	0.83	1.0
Bis(2-Ethylhexyl)Phthalate	UL	0.50	ug/L	1	1	1.0	0.50	0.50
Carbazole	U	0.50	ug/L	1	1	1.0	0.19	0.50
Phenol	U	0.50	ug/L	1	1	1.0	0.12	0.50
Butylbenzylphthalate	U	0.50	ug/L	1	1	1.0	0.13	0.50
2-Methylnaphthalene-D10		60.0	%					
Fluorene-D10		61.1	%					
Pyrene-D10		58.4	%					
2,4-Dibromophenol		31.9	%					

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Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: USACE- Seattle District
Lab ID: TM0997-3
Client ID: OF-2
Project: Bradford Island Stormwater
SDG: TM0997
Lab File ID: N6252.D

Sample Date: 16-OCT-19
Received Date: 18-OCT-19
Extract Date: 21-OCT-19
Extracted By: AC/MP
Extraction Method: SW846 3510C
Lab Prep Batch: WG264605

Analysis Date: 30-NOV-19
Analyst: JCG/BF
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 14-DEC-19

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Di-N-Butylphthalate	U	0.99	ug/L	1	2	2.0	0.82	0.99
Bis(2-Ethylhexyl)Phthalate	ULMM	0.50	ug/L	1	1	0.99	0.50	0.50
Carbazole	U	0.50	ug/L	1	1	0.99	0.19	0.50
Phenol	U	0.50	ug/L	1	1	0.99	0.12	0.50
Butylbenzylphthalate	U	0.50	ug/L	1	1	0.99	0.13	0.50
2-Methylnaphthalene-D10		78.5	%					
Fluorene-D10		77.8	%					
Pyrene-D10		76.7	%					
2,4-Dibromophenol		40.3	%					

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ANALYTICAL SERVICES

Report of Analytical Results

Client: USACE- Seattle District
Lab ID: TM0997-1
Client ID: OF-1
Project: Bradford Island Stormwater
SDG: TM0997
Lab File ID: 1MJ10300.D

Sample Date: 16-OCT-19
Received Date: 18-OCT-19
Extract Date: 22-OCT-19
Extracted By: AC/MP
Extraction Method: SW846 3510C
Lab Prep Batch: WG264708

Analysis Date: 25-OCT-19
Analyst: AC
Analysis Method: SW846 8081B
Matrix: AQ
% Solids: NA
Report Date: 30-OCT-19

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gamma-BHC	U	0.0051	ug/L	1	.05	0.010	0.0015	0.0051
Heptachlor	U	0.0051	ug/L	1	.05	0.010	0.0016	0.0051
Aldrin		0.012	ug/L	1	.05	0.010	0.0015	0.0051
Heptachlor Epoxide	U	0.0051	ug/L	1	.05	0.010	0.0015	0.0051
Endosulfan I	U	0.0051	ug/L	1	.05	0.010	0.0013	0.0051
Gamma-Chlordane	U	0.0051	ug/L	1	.05	0.010	0.0012	0.0051
Alpha-Chlordane	U	0.0051	ug/L	1	.05	0.010	0.0016	0.0051
4,4'-DDE	U	0.010	ug/L	1	.1	0.020	0.0010	0.010
Dieldrin	U	0.010	ug/L	1	.1	0.020	0.0013	0.010
Endrin	U	0.010	ug/L	1	.1	0.020	0.0017	0.010
4,4'-DDD	U	0.010	ug/L	1	.1	0.020	0.0018	0.010
Endosulfan II	U	0.010	ug/L	1	.1	0.020	0.0012	0.010
4,4'-DDT	U	0.010	ug/L	1	.1	0.020	0.0018	0.010
Endrin Aldehyde	U	0.010	ug/L	1	.1	0.020	0.0013	0.010
Endosulfan Sulfate	U	0.010	ug/L	1	.1	0.020	0.0014	0.010
Methoxychlor	U	0.051	ug/L	1	.5	0.10	0.0017	0.051
Endrin Ketone	JJ	0.0053	ug/L	1	.1	0.020	0.0016	0.010
2,4'-DDD	U	0.010	ug/L	1	.1	0.020	0.0049	0.010
2,4'-DDE	U	0.010	ug/L	1	.1	0.020	0.0047	0.010
2,4'-DDT	U	0.010	ug/L	1	.1	0.020	0.0047	0.010
Total DDDs	U	0.020	ug/L	1	.2	0.041	0.0018	0.020
Total DDEs	U	0.020	ug/L	1	.2	0.041	0.0010	0.020
Total DDTs	U	0.020	ug/L	1	.2	0.041	0.0018	0.020
Oxychlordane	U	0.010	ug/L	1	.1	0.020	0.0053	0.010
Tetrachloro-M-Xylene		63.2	%					
Decachlorobiphenyl		45.7	%					

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Katahdin
ANALYTICAL SERVICES

Form 10
Pesticide Identification Summary

Lab Name : Katahdin Analytical Services
Project : Bradford Island Stormwater

SDG : TM0997
Lab Sample ID : TM0997-1
Client Sample ID : OF-1

Column A
Instrument ID : GC01
Date Analyzed : 10/25/19
Time Analyzed : 17:52

Column B
Instrument ID : GC01
Date Analyzed : 10/25/19
Time Analyzed : 17:52

Analyte	Column	RT	Concentration	RPD
Aldrin	A	6.61	.00986	
	B	6.51	.0119	18.7
Endrin Ketone	A	10.07	.00533	
	B	10.56	.00342	43.7

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http://katahdinlab.com
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Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: USACE- Seattle District
Lab ID: TM0997-3
Client ID: OF-2
Project: Bradford Island Stormwater
SDG: TM0997
Lab File ID: 1MJ10301.D

Sample Date: 16-OCT-19
Received Date: 18-OCT-19
Extract Date: 22-OCT-19
Extracted By: AC/MP
Extraction Method: SW846 3510C
Lab Prep Batch: WG264708

Analysis Date: 25-OCT-19
Analyst: AC
Analysis Method: SW846 8081B
Matrix: AQ
% Solids: NA
Report Date: 30-OCT-19

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Gamma-BHC	U	0.0052	ug/L	1	.05	0.010	0.0015	0.0052
Heptachlor	U	0.0052	ug/L	1	.05	0.010	0.0016	0.0052
Aldrin	J	0.0032	ug/L	1	.05	0.010	0.0015	0.0052
Heptachlor Epoxide	U	0.0052	ug/L	1	.05	0.010	0.0015	0.0052
Endosulfan I	U	0.0052	ug/L	1	.05	0.010	0.0013	0.0052
Gamma-Chlordane	U	0.0052	ug/L	1	.05	0.010	0.0012	0.0052
Alpha-Chlordane	U	0.0052	ug/L	1	.05	0.010	0.0016	0.0052
4,4'-DDE	U	0.010	ug/L	1	.1	0.021	0.0010	0.010
Dieldrin	U	0.010	ug/L	1	.1	0.021	0.0013	0.010
Endrin	U	0.010	ug/L	1	.1	0.021	0.0017	0.010
4,4'-DDD	U	0.010	ug/L	1	.1	0.021	0.0018	0.010
Endosulfan II	U	0.010	ug/L	1	.1	0.021	0.0012	0.010
4,4'-DDT	U	0.010	ug/L	1	.1	0.021	0.0018	0.010
Endrin Aldehyde	U	0.010	ug/L	1	.1	0.021	0.0013	0.010
Endosulfan Sulfate	U	0.010	ug/L	1	.1	0.021	0.0014	0.010
Methoxychlor	U	0.052	ug/L	1	.5	0.10	0.0017	0.052
Endrin Ketone	U	0.010	ug/L	1	.1	0.021	0.0016	0.010
2,4'-DDD	U	0.010	ug/L	1	.1	0.021	0.0049	0.010
2,4'-DDE	U	0.010	ug/L	1	.1	0.021	0.0047	0.010
2,4'-DDT	U	0.010	ug/L	1	.1	0.021	0.0047	0.010
Total DDDs	U	0.021	ug/L	1	.2	0.041	0.0018	0.021
Total DDEs	U	0.021	ug/L	1	.2	0.041	0.0010	0.021
Total DDTs	U	0.021	ug/L	1	.2	0.041	0.0018	0.021
Oxychlordane	JJ	0.011	ug/L	1	.1	0.021	0.0054	0.010
Tetrachloro-M-Xylene		65.5	%					
Decachlorobiphenyl		46.3	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 10
Pesticide Identification Summary

Lab Name : Katahdin Analytical Services
Project : Bradford Island Stormwater

SDG : TM0997
Lab Sample ID : TM0997-3
Client Sample ID : OF-2

Column A
Instrument ID : GC01
Date Analyzed : 10/25/19
Time Analyzed : 18:12

Column B
Instrument ID : GC01
Date Analyzed : 10/25/19
Time Analyzed : 18:12

Analyte	Column	RT	Concentration	RPD
Aldrin	A	6.61	.00245	
	B	6.52	.00322	27.2
Oxychlordane	A	7.16	.0106	
	B	7.11	.00649	48.1

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http://katahdinlab.com
sales@katahdinlab.com

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** OF-1

Matrix: WATER **SDG Name:** TM0997

Percent Solids: 0.00 **Lab Sample ID:** TM0997-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-36-0	ANTIMONY, TOTAL	0.330			MS	1	0.20	0.011	0.10
7440-38-2	ARSENIC, TOTAL	0.80	U		MS	1	1.0	0.45	0.80
7440-43-9	CADMIUM, TOTAL	0.152	J		MS	1	0.20	0.0059	0.040
7440-47-3	CHROMIUM, TOTAL	3.24			MS	1	1.0	0.045	0.80
7440-50-8	COPPER, TOTAL	14.0			MS	1	0.60	0.037	0.40
000-03-5	HARDNESS, TOTAL	19600			MS	1	130	17	110
7439-92-1	LEAD, TOTAL	15.7			MS	1	0.20	0.015	0.10
7439-97-6	MERCURY, TOTAL	0.014	J		CV	1	0.20	0.013	0.10
7440-02-0	NICKEL, TOTAL	3.47			MS	1	0.40	0.030	0.24
7782-49-2	SELENIUM, TOTAL	0.055	J		MS	1	1.0	0.037	0.60
7440-22-4	SILVER, TOTAL	0.080	U		MS	1	0.20	0.010	0.080
7440-66-6	ZINC, TOTAL	22.3			MS	1	2.0	0.78	1.6

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** OF-1

Matrix: WATER **SDG Name:** TM0997

Percent Solids: 0.00 **Lab Sample ID:** TM0997-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-36-0	ANTIMONY, DISSOLVED	0.275			MS	1	0.20	0.011	0.10
7440-38-2	ARSENIC, DISSOLVED	0.80	U		MS	1	1.0	0.45	0.80
7440-43-9	CADMIUM, DISSOLVED	0.0690	J		MS	1	0.20	0.0059	0.040
7440-47-3	CHROMIUM, DISSOLVED	1.41			MS	1	1.0	0.045	0.80
7440-50-8	COPPER, DISSOLVED	12.9			MS	1	0.60	0.037	0.40
7439-92-1	LEAD, DISSOLVED	1.02			MS	1	0.20	0.015	0.10
7439-97-6	MERCURY, DISSOLVED	0.10	U		CV	1	0.20	0.013	0.10
7440-02-0	NICKEL, DISSOLVED	2.81			MS	1	0.40	0.030	0.24
7782-49-2	SELENIUM, DISSOLVED	0.052	J		MS	1	1.0	0.037	0.60
7440-22-4	SILVER, DISSOLVED	0.080	U		MS	1	0.20	0.010	0.080
7440-66-6	ZINC, DISSOLVED	17.1			MS	1	2.0	0.78	1.6

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** OF-2

Matrix: WATER **SDG Name:** TM0997

Percent Solids: 0.00 **Lab Sample ID:** TM0997-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-36-0	ANTIMONY, TOTAL	0.066	J		MS	1	0.20	0.011	0.10
7440-38-2	ARSENIC, TOTAL	0.80	U		MS	1	1.0	0.45	0.80
7440-43-9	CADMIUM, TOTAL	0.030	J		MS	1	0.20	0.0059	0.040
7440-47-3	CHROMIUM, TOTAL	0.835	J		MS	1	1.0	0.045	0.80
7440-50-8	COPPER, TOTAL	51.6			MS	1	0.60	0.037	0.40
000-03-5	HARDNESS, TOTAL	13000			MS	1	130	17	110
7439-92-1	LEAD, TOTAL	1.76			MS	1	0.20	0.015	0.10
7439-97-6	MERCURY, TOTAL	0.018	J	A	CV	1	0.20	0.013	0.10
7440-02-0	NICKEL, TOTAL	0.667			MS	1	0.40	0.030	0.24
7782-49-2	SELENIUM, TOTAL	0.60	U		MS	1	1.0	0.037	0.60
7440-22-4	SILVER, TOTAL	0.080	U		MS	1	0.20	0.010	0.080
7440-66-6	ZINC, TOTAL	40.3			MS	1	2.0	0.78	1.6

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** OF-2

Matrix: WATER **SDG Name:** TM0997

Percent Solids: 0.00 **Lab Sample ID:** TM0997-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-36-0	ANTIMONY, DISSOLVED	0.085	J		MS	1	0.20	0.011	0.10
7440-38-2	ARSENIC, DISSOLVED	0.80	U		MS	1	1.0	0.45	0.80
7440-43-9	CADMIUM, DISSOLVED	0.012	J		MS	1	0.20	0.0059	0.040
7440-47-3	CHROMIUM, DISSOLVED	0.509	J		MS	1	1.0	0.045	0.80
7440-50-8	COPPER, DISSOLVED	35.8			MS	1	0.60	0.037	0.40
7439-92-1	LEAD, DISSOLVED	0.233			MS	1	0.20	0.015	0.10
7439-97-6	MERCURY, DISSOLVED	0.015	J		CV	1	0.20	0.013	0.10
7440-02-0	NICKEL, DISSOLVED	0.404			MS	1	0.40	0.030	0.24
7782-49-2	SELENIUM, DISSOLVED	0.12	J		MS	1	1.0	0.037	0.60
7440-22-4	SILVER, DISSOLVED	0.080	U		MS	1	0.20	0.010	0.080
7440-66-6	ZINC, DISSOLVED	29.3			MS	1	2.0	0.78	1.6

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FILTER BLANK

Matrix: WATER **SDG Name:** TM0997

Percent Solids: 0.00 **Lab Sample ID:** TM0997-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-36-0	ANTIMONY, DISSOLVED	0.016	J		MS	1	0.20	0.011	0.10
7440-38-2	ARSENIC, DISSOLVED	0.80	U		MS	1	1.0	0.45	0.80
7440-43-9	CADMIUM, DISSOLVED	0.040	U		MS	1	0.20	0.0059	0.040
7440-47-3	CHROMIUM, DISSOLVED	0.10	J		MS	1	1.0	0.045	0.80
7440-50-8	COPPER, DISSOLVED	0.14	J		MS	1	0.60	0.037	0.40
7439-92-1	LEAD, DISSOLVED	0.051	J		MS	1	0.20	0.015	0.10
7439-97-6	MERCURY, DISSOLVED	0.020	J		CV	1	0.20	0.013	0.10
7440-02-0	NICKEL, DISSOLVED	0.17	J		MS	1	0.40	0.030	0.24
7782-49-2	SELENIUM, DISSOLVED	0.60	U		MS	1	1.0	0.037	0.60
7440-22-4	SILVER, DISSOLVED	0.080	U		MS	1	0.20	0.010	0.080
7440-66-6	ZINC, DISSOLVED	15.8			MS	1	2.0	0.78	1.6

Comments:

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle,WA 89124-3755

Lab Sample ID: TM0997-1
Report Date: 27-NOV-19
Project: Bradford Island Stor
SDG: TM0997

Sample Description	Matrix	Date Sampled	Date Received
OF-1	AQ	16-OCT-19 13:13:00	18-OCT-19

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Solids-Nonfilterable Residue	3.2 mg/L	2.0	0.72	1.5	SM 2540D	WG264760	28-OCT-19 12:28:00	SM 2540D	22-OCT-19	

Katahdin Analytical Services A00000016
ED_005082_00017409-00033

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle,WA 89124-3755

Lab Sample ID: TM0997-2
Report Date: 27-NOV-19
Project: Bradford Island Stor
SDG: TM0997

Sample Description	Matrix	Date Sampled	Date Received
OF-1	AQ	16-OCT-19 13:13:00	18-OCT-19

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Dissolved Organic Carbon (1)	6.0 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 16:37:40	N/A	N/A	
Dissolved Organic Carbon (2)	6.1 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 16:52:25	N/A	N/A	
Dissolved Organic Carbon (3)	6.1 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 17:09:12	N/A	N/A	
Dissolved Organic Carbon (Average)	6.1 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 19:00:00	N/A	N/A	

Katahdin Analytical Services A00000017
ED_005082_00017409-00034

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle,WA 89124-3755

Lab Sample ID: TM0997-3
Report Date: 27-NOV-19
Project: Bradford Island Stor
SDG: TM0997

Sample Description	Matrix	Date Sampled	Date Received
OF-2	AQ	16-OCT-19 12:58:00	18-OCT-19

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Solids-Nonfilterable Residue	13. mg/L	2.0	0.72	1.5	SM 2540D	WG264760	28-OCT-19 12:28:00	SM 2540D	22-OCT-19	

Katahdin Analytical Services A00000018
ED_005082_00017409-00035

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle,WA 89124-3755

Lab Sample ID: TM0997-4
Report Date: 27-NOV-19
Project: Bradford Island Stor
SDG: TM0997

Sample Description	Matrix	Date Sampled	Date Received
OF-2	AQ	16-OCT-19 12:58:00	18-OCT-19

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Dissolved Organic Carbon (1)	2.6 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 17:26:04	N/A	N/A	
Dissolved Organic Carbon (2)	2.5 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 17:40:56	N/A	N/A	
Dissolved Organic Carbon (3)	2.4 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 17:57:25	N/A	N/A	
Dissolved Organic Carbon (Average)	2.5 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 19:00:00	N/A	N/A	

Katahdin Analytical Services A00000019
ED_005082_00017409-00036

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Alison Suess (CENWS-ENT-E)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle,WA 89124-3755

Lab Sample ID: TM0997-5
Report Date: 27-NOV-19
Project: Bradford Island Stor
SDG: TM0997

Sample Description	Matrix	Date Sampled	Date Received
FILTER BLANK	AQ	18-OCT-19 12:00:00	18-OCT-19

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Dissolved Organic Carbon (1)	J0.67 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 18:13:58	N/A	N/A	
Dissolved Organic Carbon (2)	J0.71 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 18:30:22	N/A	N/A	
Dissolved Organic Carbon (3)	J0.74 mg/L	1.0	0.32	0.50	EPA 415.1	WG265259	25-OCT-19 18:44:44	N/A	N/A	
Dissolved Organic Carbon (Average)	J0.71 mg/L	1.0	0.32	.5	EPA 415.1	WG265259	25-OCT-19 19:00:00	N/A	N/A	

Katahdin Analytical Services A00000020
ED_005082_00017409-00037

SUBCONTRACTED DATA

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 580-90149-1

Job Description: DOD, Stormwater

For:
Katahdin Analytical Services
PO BOX 540
600 Technology Way
Scarborough, ME 04074

Attention: Heather Manz

Approved for release.
Nathan A Lewis
Project Manager I
11/14/2019 12:47 PM

Nathan A Lewis, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
nathan.lewis@testamericainc.com
11/14/2019

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The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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ED_005082_00017409-00039

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Dioxin

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Katahdin Analytical Services
Project: DOD, Stormwater
Report Number: 580-90149-1

No LCS/D for otins batch 315800

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

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

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

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

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

RECEIPT
The samples were received on 10/18/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1° C, 3.6° C and 3.6° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)
Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with 8270D SIM. The samples were prepared on 10/23/2019 and analyzed on 10/25/2019.

Surrogate recovery for the following sample was outside control limits: OF-1 (580-90149-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 580-314954 and analytical batch 580-315201 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS/LCSD) recoveries and precision were within acceptance limits.

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

DISSOLVED ORGANOTINS BY GC/MS
Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for organotins by GC/MS in accordance with the Krone Method. The samples were prepared on 10/22/2019 and analyzed on 11/01/2019.

The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 580-314899 and 580-314900 and analytical batch 580-315800 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

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

ORGANOTINS BY GC/MS
Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for organotins by GC/MS in accordance with the Krone Method. The samples were prepared on 10/31/2019 and analyzed on 11/05/2019 and 11/06/2019.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 580-315614 and analytical batch 580-316009 recovered outside control limits for Monobutyltin. Recoveries were within control limits; therefore, the data is qualified and reported.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 580-315614 and analytical batch 580-316009 were

outside control limits. LCS/LCSD recoveries were within acceptance limits; therefore, the data is reported.

The following samples were prepared outside of preparation holding time due to miscommunication about whether or not the samples needed to be prepared in an unfiltered batch in addition to a batch using filtered sample: OF-1 (580-90149-1), OF-2 (580-90149-2), OF-2 (580-90149-2[MS]) and OF-2 (580-90149-2[MSD]).

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

GASOLINE RANGE ORGANICS (GRO)

Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for gasoline range organics (GRO) in accordance with Method NWTPH-Gx. The samples were analyzed on 10/22/2019.

The following volatile samples were analyzed with significant headspace in the sample container(s): OF-1 (580-90149-1), OF-2 (580-90149-2), OF-2 (580-90149-2[MS]) and OF-2 (580-90149-2[MSD]). Significant headspace is defined as a bubble greater than 6 mm in diameter.

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

DIESEL AND MOTOR OIL RANGE ORGANICS

Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for diesel and motor oil range organics in accordance with Method NWTPH-Dx. The samples were prepared on 10/30/2019 and 11/08/2019 and analyzed on 10/31/2019 and 11/10/2019.

OF-1 (580-90149-1), OF-2 (580-90149-2), OF-2 (580-90149-2[MS]) and OF-2 (580-90149-2[MSD]) were re-extracted outside of holding time due to QC failures in the initial extraction. Both sets of data for these samples are reported.

Method blank (MB 580-315552/1-A) recovered outside control limits, low-biased, for o-Terphenyl surrogate. Samples associated with this method blank were re-extracted outside of holding time with concurrent results. Both sets of data are reported.

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

PCB Congeners

Samples OF-1 (580-90149-1) and OF-2 (580-90149-2) were analyzed for PCB Congeners in accordance with EPA Method 1668A. The samples were prepared on 10/25/2019 and analyzed on 11/04/2019.

Several analytes were detected in method blank MB 320-333654/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

Detection Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0081	J M Q	0.032	0.0065	ug/L	1		8270D SIM	Total/NA
Fluoranthene	0.032	J M Q	0.065	0.016	ug/L	1		8270D SIM	Total/NA
Pyrene	0.025	J M Q	0.032	0.0065	ug/L	1		8270D SIM	Total/NA
Benzo[a]anthracene	0.019	J M Q	0.065	0.0065	ug/L	1		8270D SIM	Total/NA
Chrysene	0.020	J M Q	0.065	0.016	ug/L	1		8270D SIM	Total/NA
Benzo[b]fluoranthene	0.026	J M Q	0.065	0.014	ug/L	1		8270D SIM	Total/NA
Benzo[k]fluoranthene	0.0091	J M Q	0.065	0.0065	ug/L	1		8270D SIM	Total/NA
Benzo[a]pyrene	0.013	J M Q	0.065	0.0065	ug/L	1		8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.014	J M Q	0.032	0.0065	ug/L	1		8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.011	J M Q	0.065	0.0065	ug/L	1		8270D SIM	Total/NA
#2 Diesel (C10-C24)	0.16		0.13	0.074	mg/L	1		NWTPH-Dx	Total/NA
#2 Diesel (C10-C24)	0.14	H	0.12	0.070	mg/L	1		NWTPH-Dx	Total/NA
PCB-3	1.0	J M	200	0.42	pg/L	1		1668C	Total/NA
PCB-18	5.2	J M	390	1.6	pg/L	1		1668C	Total/NA
PCB-20	8.7	J	390	1.6	pg/L	1		1668C	Total/NA
PCB-21	5.0	J M	390	1.6	pg/L	1		1668C	Total/NA
PCB-22	3.1	J M	200	1.4	pg/L	1		1668C	Total/NA
PCB-28	8.7	J	390	1.6	pg/L	1		1668C	Total/NA
PCB-30	5.2	J M	390	1.6	pg/L	1		1668C	Total/NA
PCB-31	8.2	J	200	1.7	pg/L	1		1668C	Total/NA
PCB-33	5.0	J M	390	1.6	pg/L	1		1668C	Total/NA
PCB-40	5.3	J	390	1.3	pg/L	1		1668C	Total/NA
PCB-44	22	J M	590	1.3	pg/L	1		1668C	Total/NA
PCB-47	22	J M	590	1.3	pg/L	1		1668C	Total/NA
PCB-49	7.9	J	390	1.2	pg/L	1		1668C	Total/NA
PCB-52	32	J	200	1.4	pg/L	1		1668C	Total/NA
PCB-56	4.4	J M	200	1.3	pg/L	1		1668C	Total/NA
PCB-58	5.9	J	200	1.2	pg/L	1		1668C	Total/NA
PCB-61	27	J	790	1.2	pg/L	1		1668C	Total/NA
PCB-64	5.0	J	200	1.1	pg/L	1		1668C	Total/NA
PCB-65	22	J M	590	1.3	pg/L	1		1668C	Total/NA
PCB-66	11	J	200	1.3	pg/L	1		1668C	Total/NA
PCB-69	7.9	J	390	1.2	pg/L	1		1668C	Total/NA
PCB-70	27	J	790	1.2	pg/L	1		1668C	Total/NA
PCB-71	5.3	J	390	1.3	pg/L	1		1668C	Total/NA
PCB-74	27	J	790	1.2	pg/L	1		1668C	Total/NA
PCB-76	27	J	790	1.2	pg/L	1		1668C	Total/NA
PCB-77	5.4	J	20	2.0	pg/L	1		1668C	Total/NA
PCB-82	14	J M	200	7.1	pg/L	1		1668C	Total/NA
PCB-83	12	J M	200	9.8	pg/L	1		1668C	Total/NA
PCB-84	44	J	200	8.1	pg/L	1		1668C	Total/NA
PCB-85	18	J M	590	5.5	pg/L	1		1668C	Total/NA
PCB-86	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-87	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-88	17	J	390	6.9	pg/L	1		1668C	Total/NA
PCB-90	290	J	590	5.6	pg/L	1		1668C	Total/NA
PCB-91	17	J	390	6.9	pg/L	1		1668C	Total/NA
PCB-92	42	J	200	7.0	pg/L	1		1668C	Total/NA
PCB-95	240		200	7.0	pg/L	1		1668C	Total/NA
PCB-97	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-99	42	J M	200	5.0	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OF-1 (Continued)

Lab Sample ID: 580-90149-1

Analyte	Result	Qualifier	LOQ	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-101	290	J	590	5.6	pg/L	1		1668C	Total/NA
PCB-105	72		20	5.7	pg/L	1		1668C	Total/NA
PCB-107	6.4	J	390	4.9	pg/L	1		1668C	Total/NA
PCB-108	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-109	14	J M	200	5.2	pg/L	1		1668C	Total/NA
PCB-110	270	J M	390	4.1	pg/L	1		1668C	Total/NA
PCB-113	290	J	590	5.6	pg/L	1		1668C	Total/NA
PCB-115	270	J M	390	4.1	pg/L	1		1668C	Total/NA
PCB-116	18	J M	590	5.5	pg/L	1		1668C	Total/NA
PCB-117	18	J M	590	5.5	pg/L	1		1668C	Total/NA
PCB-118	220	M	20	5.8	pg/L	1		1668C	Total/NA
PCB-119	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-124	6.4	J	390	4.9	pg/L	1		1668C	Total/NA
PCB-125	110	J M	1200	5.3	pg/L	1		1668C	Total/NA
PCB-128	240	J	390	7.4	pg/L	1		1668C	Total/NA
PCB-129	2800		590	8.0	pg/L	1		1668C	Total/NA
PCB-130	97	J	200	11	pg/L	1		1668C	Total/NA
PCB-132	510		200	8.8	pg/L	1		1668C	Total/NA
PCB-133	14	J	200	8.3	pg/L	1		1668C	Total/NA
PCB-134	48	J	390	9.4	pg/L	1		1668C	Total/NA
PCB-135	590		390	8.3	pg/L	1		1668C	Total/NA
PCB-136	150	J	200	6.7	pg/L	1		1668C	Total/NA
PCB-137	48	J M	200	9.3	pg/L	1		1668C	Total/NA
PCB-138	2800		590	8.0	pg/L	1		1668C	Total/NA
PCB-141	600		200	8.3	pg/L	1		1668C	Total/NA
PCB-143	48	J	390	9.4	pg/L	1		1668C	Total/NA
PCB-144	84	J	200	8.2	pg/L	1		1668C	Total/NA
PCB-146	270		200	7.7	pg/L	1		1668C	Total/NA
PCB-147	1400		390	7.5	pg/L	1		1668C	Total/NA
PCB-149	1400		390	7.5	pg/L	1		1668C	Total/NA
PCB-151	590		390	8.3	pg/L	1		1668C	Total/NA
PCB-153	2200		390	6.7	pg/L	1		1668C	Total/NA
PCB-156	210		39	6.2	pg/L	1		1668C	Total/NA
PCB-157	210		39	6.2	pg/L	1		1668C	Total/NA
PCB-158	250		200	6.4	pg/L	1		1668C	Total/NA
PCB-159	73	J	200	3.9	pg/L	1		1668C	Total/NA
PCB-162	8.7	J M	200	4.3	pg/L	1		1668C	Total/NA
PCB-163	2800		590	8.0	pg/L	1		1668C	Total/NA
PCB-164	170	J M	200	5.9	pg/L	1		1668C	Total/NA
PCB-166	240	J	390	7.4	pg/L	1		1668C	Total/NA
PCB-167	110		20	4.6	pg/L	1		1668C	Total/NA
PCB-168	2200		390	6.7	pg/L	1		1668C	Total/NA
PCB-170	2100		200	20	pg/L	1		1668C	Total/NA
PCB-171	450		390	16	pg/L	1		1668C	Total/NA
PCB-172	300		200	17	pg/L	1		1668C	Total/NA
PCB-173	450		390	16	pg/L	1		1668C	Total/NA
PCB-174	1700	M	200	15	pg/L	1		1668C	Total/NA
PCB-175	68	J	200	0.83	pg/L	1		1668C	Total/NA
PCB-176	150	J	200	0.64	pg/L	1		1668C	Total/NA
PCB-177	870		200	15	pg/L	1		1668C	Total/NA
PCB-178	300		200	0.85	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OF-1 (Continued) — Lab Sample ID: 580-90149-1

Analyte	Result	Qualifier	LOQ	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-179	360		200	0.51	pg/L	1		1668C	Total/NA
PCB-180	4500	M	390	14	pg/L	1		1668C	Total/NA
PCB-183	930	M	200	15	pg/L	1		1668C	Total/NA
PCB-185	170	J M	200	15	pg/L	1		1668C	Total/NA
PCB-187	1900		200	0.69	pg/L	1		1668C	Total/NA
PCB-189	81	M	20	0.54	pg/L	1		1668C	Total/NA
PCB-190	440	M	200	14	pg/L	1		1668C	Total/NA
PCB-191	80	J M	200	14	pg/L	1		1668C	Total/NA
PCB-193	4500	M	390	14	pg/L	1		1668C	Total/NA
PCB-194	1300		200	0.99	pg/L	1		1668C	Total/NA
PCB-195	500		200	1.0	pg/L	1		1668C	Total/NA
PCB-196	620		200	3.0	pg/L	1		1668C	Total/NA
PCB-197	31	J	200	1.9	pg/L	1		1668C	Total/NA
PCB-198	1100		390	2.7	pg/L	1		1668C	Total/NA
PCB-199	1100		390	2.7	pg/L	1		1668C	Total/NA
PCB-200	130	J	200	2.1	pg/L	1		1668C	Total/NA
PCB-201	110	J	200	2.3	pg/L	1		1668C	Total/NA
PCB-202	150	J	200	2.6	pg/L	1		1668C	Total/NA
PCB-203	640		200	2.4	pg/L	1		1668C	Total/NA
PCB-205	79	J	200	0.80	pg/L	1		1668C	Total/NA
PCB-206	290		200	1.8	pg/L	1		1668C	Total/NA
PCB-207	36	J	200	1.1	pg/L	1		1668C	Total/NA
PCB-208	48	J M	200	1.2	pg/L	1		1668C	Total/NA
PCB-209	13	J	200	0.38	pg/L	1		1668C	Total/NA

Client Sample ID: OF-2 — Lab Sample ID: 580-90149-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.013	J M	0.035	0.0071	ug/L	1		8270D SIM	Total/NA
Fluoranthene	0.041	J M	0.071	0.018	ug/L	1		8270D SIM	Total/NA
Pyrene	0.034	J M	0.035	0.0071	ug/L	1		8270D SIM	Total/NA
Benzo[a]anthracene	0.022	J M	0.071	0.0071	ug/L	1		8270D SIM	Total/NA
Chrysene	0.028	J M	0.071	0.018	ug/L	1		8270D SIM	Total/NA
Benzo[b]fluoranthene	0.018	J M J1	0.071	0.015	ug/L	1		8270D SIM	Total/NA
Benzo[k]fluoranthene	0.0097	J M	0.071	0.0071	ug/L	1		8270D SIM	Total/NA
Benzo[a]pyrene	0.012	J M	0.071	0.0071	ug/L	1		8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.011	J M	0.035	0.0071	ug/L	1		8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.0079	J M	0.071	0.0071	ug/L	1		8270D SIM	Total/NA
#2 Diesel (C10-C24)	0.11	J Q	0.12	0.070	mg/L	1		NWTPH-Dx	Total/NA
#2 Diesel (C10-C24)	0.074	J H	0.12	0.071	mg/L	1		NWTPH-Dx	Total/NA
PCB-1	2.3	J M	200	0.51	pg/L	1		1668C	Total/NA
PCB-3	2.1	J M	200	0.46	pg/L	1		1668C	Total/NA
PCB-11	35	J M	200	9.9	pg/L	1		1668C	Total/NA
PCB-17	4.5	J M	200	3.1	pg/L	1		1668C	Total/NA
PCB-18	6.2	J M	400	2.1	pg/L	1		1668C	Total/NA
PCB-20	18	J M	400	2.2	pg/L	1		1668C	Total/NA
PCB-21	12	J M	400	2.2	pg/L	1		1668C	Total/NA
PCB-22	6.5	J M	200	2.0	pg/L	1		1668C	Total/NA
PCB-28	18	J M	400	2.2	pg/L	1		1668C	Total/NA
PCB-30	6.2	J M	400	2.1	pg/L	1		1668C	Total/NA
PCB-31	19	J	200	2.4	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OF-2 (Continued)
Lab Sample ID: 580-90149-2

Analyte	Result	Qualifier	LOQ	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-33	12	J M	400	2.2	pg/L	1		1668C	Total/NA
PCB-37	12	J M	200	2.8	pg/L	1		1668C	Total/NA
PCB-40	7.1	J	400	0.97	pg/L	1		1668C	Total/NA
PCB-42	4.4	J M	200	1.1	pg/L	1		1668C	Total/NA
PCB-44	17	J	610	0.97	pg/L	1		1668C	Total/NA
PCB-45	2.3	J M	200	1.5	pg/L	1		1668C	Total/NA
PCB-47	17	J	610	0.97	pg/L	1		1668C	Total/NA
PCB-48	3.4	J	200	1.1	pg/L	1		1668C	Total/NA
PCB-49	6.2	J	400	0.91	pg/L	1		1668C	Total/NA
PCB-50	1.7	J	400	1.1	pg/L	1		1668C	Total/NA
PCB-51	2.1	J M	200	0.99	pg/L	1		1668C	Total/NA
PCB-52	13	J M	200	1.0	pg/L	1		1668C	Total/NA
PCB-53	1.7	J	400	1.1	pg/L	1		1668C	Total/NA
PCB-56	8.5	J	200	0.81	pg/L	1		1668C	Total/NA
PCB-59	1.6	J M	610	0.85	pg/L	1		1668C	Total/NA
PCB-60	4.5	J	200	0.90	pg/L	1		1668C	Total/NA
PCB-61	24	J M	810	0.78	pg/L	1		1668C	Total/NA
PCB-62	1.6	J M	610	0.85	pg/L	1		1668C	Total/NA
PCB-64	7.1	J	200	0.78	pg/L	1		1668C	Total/NA
PCB-65	17	J	610	0.97	pg/L	1		1668C	Total/NA
PCB-66	16	J M	200	0.84	pg/L	1		1668C	Total/NA
PCB-69	6.2	J	400	0.91	pg/L	1		1668C	Total/NA
PCB-70	24	J M	810	0.78	pg/L	1		1668C	Total/NA
PCB-71	7.1	J	400	0.97	pg/L	1		1668C	Total/NA
PCB-74	24	J M	810	0.78	pg/L	1		1668C	Total/NA
PCB-75	1.6	J M	610	0.85	pg/L	1		1668C	Total/NA
PCB-76	24	J M	810	0.78	pg/L	1		1668C	Total/NA
PCB-77	3.7	J	20	1.2	pg/L	1		1668C	Total/NA
PCB-84	4.8	J M	200	1.6	pg/L	1		1668C	Total/NA
PCB-85	2.4	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-86	14	J M	1200	1.1	pg/L	1		1668C	Total/NA
PCB-87	14	J M	1200	1.1	pg/L	1		1668C	Total/NA
PCB-88	3.0	J M	400	1.4	pg/L	1		1668C	Total/NA
PCB-90	26	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-91	3.0	J M	400	1.4	pg/L	1		1668C	Total/NA
PCB-92	4.3	J	200	1.4	pg/L	1		1668C	Total/NA
PCB-95	19	J M	200	1.4	pg/L	1		1668C	Total/NA
PCB-97	14	J M	1200	1.1	pg/L	1		1668C	Total/NA
PCB-99	5.4	J M	200	1.0	pg/L	1		1668C	Total/NA
PCB-101	26	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-105	15	J M	20	1.2	pg/L	1		1668C	Total/NA
PCB-108	14	J M	1200	1.1	pg/L	1		1668C	Total/NA
PCB-109	2.9	J M	200	1.1	pg/L	1		1668C	Total/NA
PCB-110	28	J	400	0.83	pg/L	1		1668C	Total/NA
PCB-113	26	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-115	28	J	400	0.83	pg/L	1		1668C	Total/NA
PCB-116	2.4	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-117	2.4	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-118	30		20	1.1	pg/L	1		1668C	Total/NA
PCB-119	14	J M	1200	1.1	pg/L	1		1668C	Total/NA
PCB-125	14	J M	1200	1.1	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OF-2 (Continued)

Lab Sample ID: 580-90149-2

Analyte	Result	Qualifier	LOQ	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-126	1.4	J M	20	1.2	pg/L	1		1668C	Total/NA
PCB-128	22	J M	400	1.0	pg/L	1		1668C	Total/NA
PCB-129	220	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-130	9.3	J M	200	1.5	pg/L	1		1668C	Total/NA
PCB-132	37	J	200	1.2	pg/L	1		1668C	Total/NA
PCB-135	44	J	400	1.2	pg/L	1		1668C	Total/NA
PCB-136	10	J M	200	0.95	pg/L	1		1668C	Total/NA
PCB-137	2.6	J M	200	1.3	pg/L	1		1668C	Total/NA
PCB-138	220	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-141	49	J	200	1.2	pg/L	1		1668C	Total/NA
PCB-144	6.4	J	200	1.2	pg/L	1		1668C	Total/NA
PCB-146	27	J	200	1.1	pg/L	1		1668C	Total/NA
PCB-147	110	J M	400	1.1	pg/L	1		1668C	Total/NA
PCB-149	110	J M	400	1.1	pg/L	1		1668C	Total/NA
PCB-151	44	J	400	1.2	pg/L	1		1668C	Total/NA
PCB-153	190	J M	400	0.94	pg/L	1		1668C	Total/NA
PCB-156	24	J	40	1.1	pg/L	1		1668C	Total/NA
PCB-157	24	J	40	1.1	pg/L	1		1668C	Total/NA
PCB-158	20	J	200	0.91	pg/L	1		1668C	Total/NA
PCB-159	5.4	J	200	0.68	pg/L	1		1668C	Total/NA
PCB-162	0.89	J M	200	0.76	pg/L	1		1668C	Total/NA
PCB-163	220	J	610	1.1	pg/L	1		1668C	Total/NA
PCB-164	14	J M	200	0.84	pg/L	1		1668C	Total/NA
PCB-166	22	J M	400	1.0	pg/L	1		1668C	Total/NA
PCB-167	11	J	20	0.79	pg/L	1		1668C	Total/NA
PCB-168	190	J M	400	0.94	pg/L	1		1668C	Total/NA
PCB-169	2.5	J M	20	0.87	pg/L	1		1668C	Total/NA
PCB-170	220	M	200	2.5	pg/L	1		1668C	Total/NA
PCB-171	42	J	400	2.0	pg/L	1		1668C	Total/NA
PCB-172	30	J	200	2.2	pg/L	1		1668C	Total/NA
PCB-173	42	J	400	2.0	pg/L	1		1668C	Total/NA
PCB-174	150	J M	200	1.9	pg/L	1		1668C	Total/NA
PCB-175	6.5	J	200	0.67	pg/L	1		1668C	Total/NA
PCB-176	11	J	200	0.51	pg/L	1		1668C	Total/NA
PCB-177	83	J	200	1.9	pg/L	1		1668C	Total/NA
PCB-178	30	J	200	0.69	pg/L	1		1668C	Total/NA
PCB-179	32	J	200	0.41	pg/L	1		1668C	Total/NA
PCB-180	410	M	400	1.8	pg/L	1		1668C	Total/NA
PCB-183	74	J M	200	1.9	pg/L	1		1668C	Total/NA
PCB-185	22	J M	200	1.9	pg/L	1		1668C	Total/NA
PCB-187	170	J	200	0.56	pg/L	1		1668C	Total/NA
PCB-189	10	J M	20	0.47	pg/L	1		1668C	Total/NA
PCB-190	49	J M	200	1.7	pg/L	1		1668C	Total/NA
PCB-191	7.3	J M	200	1.7	pg/L	1		1668C	Total/NA
PCB-193	410	M	400	1.8	pg/L	1		1668C	Total/NA
PCB-194	150	J	200	0.53	pg/L	1		1668C	Total/NA
PCB-195	55	J	200	0.54	pg/L	1		1668C	Total/NA
PCB-196	65	J	200	0.61	pg/L	1		1668C	Total/NA
PCB-197	3.9	J M	200	0.40	pg/L	1		1668C	Total/NA
PCB-198	120	J	400	0.55	pg/L	1		1668C	Total/NA
PCB-199	120	J	400	0.55	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Client Sample ID: OF-2 (Continued)

Lab Sample ID: 580-90149-2

Analyte	Result	Qualifier	LOQ	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-200	13	J M	200	0.43	pg/L	1		1668C	Total/NA
PCB-201	12	J	200	0.47	pg/L	1		1668C	Total/NA
PCB-202	15	J	200	0.50	pg/L	1		1668C	Total/NA
PCB-203	68	J	200	0.49	pg/L	1		1668C	Total/NA
PCB-205	9.5	J	200	0.45	pg/L	1		1668C	Total/NA
PCB-206	42	J	200	2.1	pg/L	1		1668C	Total/NA
PCB-207	5.5	J	200	1.2	pg/L	1		1668C	Total/NA
PCB-208	8.4	J	200	1.3	pg/L	1		1668C	Total/NA
PCB-209	6.2	J M	200	0.45	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.086	U M Q	0.11	0.027	ug/L		10/23/19 11:34	10/25/19 22:05	1
2-Methylnaphthalene	0.0081	J M Q	0.032	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Acenaphthylene	0.022	U M Q	0.032	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Acenaphthene	0.022	U M Q	0.032	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Fluorene	0.022	U M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Phenanthrene	0.043	U M Q	0.065	0.018	ug/L		10/23/19 11:34	10/25/19 22:05	1
Anthracene	0.022	U M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Fluoranthene	0.032	J M Q	0.065	0.016	ug/L		10/23/19 11:34	10/25/19 22:05	1
Pyrene	0.025	J M Q	0.032	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Benzo[a]anthracene	0.019	J M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Chrysene	0.020	J M Q	0.065	0.016	ug/L		10/23/19 11:34	10/25/19 22:05	1
Benzo[b]fluoranthene	0.026	J M Q	0.065	0.014	ug/L		10/23/19 11:34	10/25/19 22:05	1
Benzo[k]fluoranthene	0.0091	J M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Benzo[a]pyrene	0.013	J M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Indeno[1,2,3-cd]pyrene	0.014	J M Q	0.032	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1
Dibenz(a,h)anthracene	0.043	U M Q	0.065	0.014	ug/L		10/23/19 11:34	10/25/19 22:05	1
Benzo[g,h,i]perylene	0.011	J M Q	0.065	0.0065	ug/L		10/23/19 11:34	10/25/19 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*52*	*Q*	*58 - 132*	*10/23/19 11:34*	*10/25/19 22:05*	*1*
2-methylnaphthalene-d10	*45*		*40 - 140*	*10/23/19 11:34*	*10/25/19 22:05*	*1*
Fluoranthene-d10 (Surr)	*57*		*40 - 140*	*10/23/19 11:34*	*10/25/19 22:05*	*1*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.16	U H	0.32	0.060	ug/L		10/31/19 17:34	11/05/19 15:02	1
Monobutyltin	0.13	U H Q	0.32	0.066	ug/L		10/31/19 17:34	11/05/19 15:02	1
Tetra-n-butyltin	0.22	U H	0.32	0.11	ug/L		10/31/19 17:34	11/05/19 15:02	1
Tributyltin	0.19	U H M	0.32	0.050	ug/L		10/31/19 17:34	11/05/19 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*61*		*10 - 142*	*10/31/19 17:34*	*11/05/19 15:02*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.16	U M	0.32	0.060	ug/L		10/22/19 16:38	11/01/19 23:09	1
Monobutyltin	0.13	U	0.32	0.065	ug/L		10/22/19 16:38	11/01/19 23:09	1
Tetra-n-butyltin	0.21	U M	0.32	0.11	ug/L		10/22/19 16:38	11/01/19 23:09	1
Tributyltin	0.19	U M	0.32	0.049	ug/L		10/22/19 16:38	11/01/19 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*70*		*10 - 142*	*10/22/19 16:38*	*11/01/19 23:09*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	0.20	U	0.25	0.10	mg/L			10/22/19 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*50 - 150*		*10/22/19 13:27*	*1*
Trifluorotoluene (Surr)	*113*		*50 - 150*		*10/22/19 13:27*	*1*

Client Sample Results

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.16		0.13	0.074	mg/L		10/30/19 13:05	10/31/19 19:42	1
#2 Diesel (C10-C24)	0.14	H	0.12	0.070	mg/L		11/08/19 08:56	11/10/19 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*50 - 150*	*10/30/19 13:05*	*10/31/19 19:42*	*1*
o-Terphenyl	*84*		*50 - 150*	*11/08/19 08:56*	*11/10/19 01:09*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	9.8	U	200	0.46	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-2	20	U	200	0.37	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-3	1.0	J M	200	0.42	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-4	25	U	200	13	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-5	25	U	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-6	25	U	200	12	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-7	25	U	200	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-8	25	U	200	12	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-9	49	U	200	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-10	49	U	200	9.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-11	25	U	200	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-12	39	U	390	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-13	39	U	390	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-14	25	U	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-15	20	U	200	16	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-16	49	U	200	2.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-17	9.8	U	200	2.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-18	5.2	J M	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-19	9.8	U	200	2.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-20	8.7	J	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-21	5.0	J M	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-22	3.1	J M	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-23	20	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-24	20	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-25	20	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-26	39	U	390	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-27	20	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-28	8.7	J	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-29	39	U	390	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-30	5.2	J M	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-31	8.2	J	200	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-32	9.8	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-33	5.0	J M	390	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-34	20	U	200	1.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-35	9.8	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-36	9.8	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-37	9.8	U	200	2.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-38	20	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-39	9.8	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-40	5.3	J	390	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-41	9.8	U	200	1.9	pg/L		10/25/19 08:29	11/04/19 19:02	1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-42	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-43	9.8	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-44	22	J M	590	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-45	20	U	200	2.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-46	20	U	200	1.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-47	22	J M	590	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-48	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-49	7.9	J	390	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-50	39	U	390	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-51	20	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-52	32	J	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-53	39	U	390	1.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-54	9.8	U	200	0.99	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-55	9.8	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-56	4.4	J M	200	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-57	9.8	U M	200	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-58	5.9	J	200	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-59	59	U	590	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-60	20	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-61	27	J	790	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-62	59	U	590	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-63	20	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-64	5.0	J	200	1.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-65	22	J M	590	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-66	11	J	200	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-67	20	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-68	20	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-69	7.9	J	390	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-70	27	J	790	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-71	5.3	J	390	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-72	20	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-73	20	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-74	27	J	790	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-75	59	U	590	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-76	27	J	790	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-77	5.4	J	20	2.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-78	9.8	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-79	9.8	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-80	9.8	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-81	9.8	U M	20	2.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-82	14	J M	200	7.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-83	12	J M	200	9.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-84	44	J	200	8.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-85	18	J M	590	5.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-86	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-87	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-88	17	J	390	6.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-89	9.8	U	200	6.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-90	290	J	590	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13

Matrix: Water

Date Received: 10/18/19 09:15

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-91	17	J	390	6.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-92	42	J	200	7.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-93	20	U	390	6.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-94	20	U	200	7.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-95	240		200	7.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-96	20	U	200	0.53	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-97	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-98	20	U	390	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-99	42	J M	200	5.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-100	20	U	390	6.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-101	290	J	590	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-102	20	U	390	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-103	9.8	U	200	6.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-104	9.8	U	200	0.45	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-105	72		20	5.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-106	20	U	200	4.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-107	6.4	J	390	4.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-108	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-109	14	J M	200	5.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-110	270	J M	390	4.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-111	20	U	200	4.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-112	9.8	U M	200	3.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-113	290	J	590	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-114	9.8	U	20	6.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-115	270	J M	390	4.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-116	18	J M	590	5.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-117	18	J M	590	5.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-118	220	M	20	5.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-119	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-120	9.8	U	200	4.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-121	9.8	U	200	4.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-122	9.8	U	200	6.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-123	9.8	U	20	5.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-124	6.4	J	390	4.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-125	110	J M	1200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-126	9.8	U	20	5.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-127	20	U	200	5.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-128	240	J	390	7.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-129	2800		590	8.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-130	97	J	200	11	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-131	20	U	200	9.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-132	510		200	8.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-133	14	J	200	8.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-134	48	J	390	9.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-135	590		390	8.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-136	150	J	200	6.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-137	48	J M	200	9.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-138	2800		590	8.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-139	20	U	390	7.7	pg/L		10/25/19 08:29	11/04/19 19:02	1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13

Matrix: Water

Date Received: 10/18/19 09:15

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-140	20	U	390	7.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-141	600		200	8.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-142	9.8	U	200	8.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-143	48	J	390	9.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-144	84	J	200	8.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-145	9.8	U	200	5.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-146	270		200	7.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-147	1400		390	7.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-148	9.8	U	200	8.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-149	1400		390	7.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-150	20	U	200	5.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-151	590		390	8.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-152	9.8	U	200	5.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-153	2200		390	6.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-154	9.8	U	200	7.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-155	9.8	U	200	6.5	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-156	210		39	6.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-157	210		39	6.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-158	250		200	6.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-159	73	J	200	3.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-160	20	U M	200	7.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-161	9.8	U M	200	5.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-162	8.7	J M	200	4.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-163	2800		590	8.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-164	170	J M	200	5.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-165	9.8	U	200	7.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-166	240	J	390	7.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-167	110		20	4.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-168	2200		390	6.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-169	9.8	U M	20	11	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-170	2100		200	20	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-171	450		390	16	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-172	300		200	17	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-173	450		390	16	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-174	1700	M	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-175	68	J	200	0.83	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-176	150	J	200	0.64	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-177	870		200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-178	300		200	0.85	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-179	360		200	0.51	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-180	4500	M	390	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-181	9.8	U	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-182	9.8	U	200	0.68	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-183	930	M	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-184	20	U	200	0.58	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-185	170	J M	200	15	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-186	9.8	U	200	0.51	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-187	1900		200	0.69	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-188	9.8	U	200	0.84	pg/L		10/25/19 08:29	11/04/19 19:02	1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-189	81	M	20	0.54	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-190	440	M	200	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-191	80	J M	200	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-192	20	U	200	12	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-193	4500	M	390	14	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-194	1300		200	0.99	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-195	500		200	1.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-196	620		200	3.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-197	31	J	200	1.9	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-198	1100		390	2.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-199	1100		390	2.7	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-200	130	J	200	2.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-201	110	J	200	2.3	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-202	150	J	200	2.6	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-203	640		200	2.4	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-204	20	U	200	2.0	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-205	79	J	200	0.80	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-206	290		200	1.8	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-207	36	J	200	1.1	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-208	48	J M	200	1.2	pg/L		10/25/19 08:29	11/04/19 19:02	1
PCB-209	13	J	200	0.38	pg/L		10/25/19 08:29	11/04/19 19:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*67*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-3L	*70*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-4L	*68*		*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-15L	*71*		*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-19L	*65*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-37L	*81*		*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-54L	*88*		*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-77L	*72*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-81L	*68*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-104L	*84*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-105L	*80*	*M*	*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-114L	*73*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-118L	*76*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-123L	*76*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-126L	*90*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-155L	*69*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-156L	*75*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-156L/157L	*75*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-157L	*75*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-167L	*73*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-169L	*86*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-188L	*63*	*M*	*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-189L	*76*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-202L	*64*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-205L	*84*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-206L	*78*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-208L	*73*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-209L	*80*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*99*		*5 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-111L	*88*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*
PCB-178L	*92*		*10 - 145*	*10/25/19 08:29*	*11/04/19 19:02*	*1*

Client Sample ID: OF-2

Lab Sample ID: 580-90149-2

Date Collected: 10/16/19 12:58
Date Received: 10/18/19 09:15

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.094	U M J1	0.12	0.029	ug/L		10/23/19 11:34	10/25/19 22:31	1
2-Methylnaphthalene	0.013	J M	0.035	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Acenaphthylene	0.024	U M J1	0.035	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Acenaphthene	0.024	U M J1	0.035	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Fluorene	0.024	U M J1	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Phenanthrene	0.047	U J1	0.071	0.020	ug/L		10/23/19 11:34	10/25/19 22:31	1
Anthracene	0.024	U M J1	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Fluoranthene	0.041	J M	0.071	0.018	ug/L		10/23/19 11:34	10/25/19 22:31	1
Pyrene	0.034	J M	0.035	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Benzo[a]anthracene	0.022	J M	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Chrysene	0.028	J M	0.071	0.018	ug/L		10/23/19 11:34	10/25/19 22:31	1
Benzo[b]fluoranthene	0.018	J M J1	0.071	0.015	ug/L		10/23/19 11:34	10/25/19 22:31	1
Benzo[k]fluoranthene	0.0097	J M	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Benzo[a]pyrene	0.012	J M	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Indeno[1,2,3-cd]pyrene	0.011	J M	0.035	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1
Dibenz(a,h)anthracene	0.047	U	0.071	0.015	ug/L		10/23/19 11:34	10/25/19 22:31	1
Benzo[g,h,i]perylene	0.0079	J M	0.071	0.0071	ug/L		10/23/19 11:34	10/25/19 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*58 - 132*	*10/23/19 11:34*	*10/25/19 22:31*	*1*
2-methylnaphthalene-d10	*43*		*40 - 140*	*10/23/19 11:34*	*10/25/19 22:31*	*1*
Fluoranthene-d10 (Surr)	*67*		*40 - 140*	*10/23/19 11:34*	*10/25/19 22:31*	*1*

Method: Organotins - Organotins, PSEP (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.17	U H M	0.33	0.062	ug/L		10/31/19 17:34	11/05/19 15:27	1
Monobutyltin	0.14	U H J1 Q	0.33	0.067	ug/L		10/31/19 17:34	11/05/19 15:27	1
Tetra-n-butyltin	0.22	U H M	0.33	0.11	ug/L		10/31/19 17:34	11/05/19 15:27	1
Tributyltin	0.20	U H M	0.33	0.051	ug/L		10/31/19 17:34	11/05/19 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*63*		*10 - 142*	*10/31/19 17:34*	*11/05/19 15:27*	*1*
Tripentyltin	*70*		*10 - 142*	*10/31/19 17:34*	*11/06/19 20:45*	*1*

Method: Organotins - Organotins, PSEP (GC/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.15	U M	0.30	0.057	ug/L		10/22/19 16:38	11/01/19 23:34	1
Monobutyltin	0.13	U J1	0.30	0.062	ug/L		10/22/19 16:38	11/01/19 23:34	1

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Matrix: Water

Method: Organotins - Organotins, PSEP (GC/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Tetra-n-butyltin	0.20	U M	0.30	0.10	ug/L		10/22/19 16:38	11/01/19 23:34	1
Tributyltin	0.18	U M	0.30	0.046	ug/L		10/22/19 16:38	11/01/19 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*71*		*10 - 142*	*10/22/19 16:38*	*11/01/19 23:34*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	0.20	U	0.25	0.10	mg/L			10/22/19 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*50 - 150*		*10/22/19 13:51*	*1*
Trifluorotoluene (Surr)	*105*		*50 - 150*		*10/22/19 13:51*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.11	J Q	0.12	0.070	mg/L		10/30/19 13:05	10/31/19 20:22	1
#2 Diesel (C10-C24)	0.074	J H	0.12	0.071	mg/L		11/08/19 08:56	11/10/19 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*155*	*Q*	*50 - 150*	*10/30/19 13:05*	*10/31/19 20:22*	*1*
o-Terphenyl	*77*		*50 - 150*	*11/08/19 08:56*	*11/10/19 01:30*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	2.3	J M	200	0.51	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-2	20	U	200	0.41	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-3	2.1	J M	200	0.46	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-4	25	U	200	20	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-5	25	U	200	11	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-6	25	U	200	8.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-7	25	U	200	10	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-8	25	U	200	8.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-9	51	U	200	9.7	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-10	51	U	200	13	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-11	35	J M	200	9.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-12	40	U	400	11	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-13	40	U	400	11	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-14	25	U	200	11	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-15	20	U	200	11	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-16	51	U	200	3.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-17	4.5	J M	200	3.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-18	6.2	J M	400	2.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-19	10	U	200	3.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-20	18	J M	400	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-21	12	J M	400	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-22	6.5	J M	200	2.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-23	20	U	200	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-24	20	U	200	2.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-25	20	U	200	1.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-26	40	U	400	2.3	pg/L		10/25/19 08:29	11/04/19 20:17	1

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Lab Sample ID: 580-90149-2

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Matrix: Water

Date Received: 10/18/19 09:15

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-27	20	U	200	2.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-28	18	J M	400	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-29	40	U	400	2.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-30	6.2	J M	400	2.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-31	19	J	200	2.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-32	10	U	200	2.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-33	12	J M	400	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-34	20	U	200	2.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-35	10	U	200	2.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-36	10	U	200	2.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-37	12	J M	200	2.8	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-38	20	U	200	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-39	10	U	200	2.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-40	7.1	J	400	0.97	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-41	10	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-42	4.4	J M	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-43	10	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-44	17	J	610	0.97	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-45	2.3	J M	200	1.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-46	20	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-47	17	J	610	0.97	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-48	3.4	J	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-49	6.2	J	400	0.91	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-50	1.7	J	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-51	2.1	J M	200	0.99	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-52	13	J M	200	1.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-53	1.7	J	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-54	10	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-55	10	U	200	0.70	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-56	8.5	J	200	0.81	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-57	10	U	200	0.82	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-58	20	U	200	0.75	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-59	1.6	J M	610	0.85	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-60	4.5	J	200	0.90	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-61	24	J M	810	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-62	1.6	J M	610	0.85	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-63	20	U	200	0.91	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-64	7.1	J	200	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-65	17	J	610	0.97	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-66	16	J M	200	0.84	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-67	20	U	200	0.68	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-68	20	U	200	0.80	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-69	6.2	J	400	0.91	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-70	24	J M	810	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-71	7.1	J	400	0.97	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-72	20	U	200	0.76	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-73	20	U	200	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-74	24	J M	810	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-75	1.6	J M	610	0.85	pg/L		10/25/19 08:29	11/04/19 20:17	1

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Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-76	24	J M	810	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-77	3.7	J	20	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-78	10	U	200	0.88	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-79	10	U	200	0.78	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-80	10	U	200	0.81	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-81	10	U	20	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-82	10	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-83	20	U	200	2.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-84	4.8	J M	200	1.6	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-85	2.4	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-86	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-87	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-88	3.0	J M	400	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-89	10	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-90	26	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-91	3.0	J M	400	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-92	4.3	J	200	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-93	20	U	400	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-94	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-95	19	J M	200	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-96	20	U	200	0.49	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-97	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-98	20	U	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-99	5.4	J M	200	1.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-100	20	U	400	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-101	26	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-102	20	U	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-103	10	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-104	10	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-105	15	J M	20	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-106	20	U	200	0.85	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-107	20	U	400	0.99	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-108	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-109	2.9	J M	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-110	28	J	400	0.83	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-111	20	U	200	0.96	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-112	10	U M	200	0.77	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-113	26	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-114	10	U	20	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-115	28	J	400	0.83	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-116	2.4	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-117	2.4	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-118	30		20	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-119	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-120	10	U	200	0.83	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-121	10	U	200	0.86	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-122	10	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-123	10	U	20	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-124	20	U	400	0.99	pg/L		10/25/19 08:29	11/04/19 20:17	1

Client Sample ID: OF-2

Lab Sample ID: 580-90149-2

Date Collected: 10/16/19 12:58
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-125	14	J M	1200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-126	1.4	J M	20	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-127	20	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-128	22	J M	400	1.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-129	220	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-130	9.3	J M	200	1.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-131	20	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-132	37	J	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-133	10	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-134	40	U	400	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-135	44	J	400	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-136	10	J M	200	0.95	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-137	2.6	J M	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-138	220	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-139	20	U	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-140	20	U	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-141	49	J	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-142	10	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-143	40	U	400	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-144	6.4	J	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-145	10	U	200	0.82	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-146	27	J	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-147	110	J M	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-148	10	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-149	110	J M	400	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-150	20	U	200	0.83	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-151	44	J	400	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-152	10	U	200	0.80	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-153	190	J M	400	0.94	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-154	10	U	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-155	10	U	200	0.87	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-156	24	J	40	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-157	24	J	40	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-158	20	J	200	0.91	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-159	5.4	J	200	0.68	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-160	20	U M	200	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-161	10	U M	200	0.82	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-162	0.89	J M	200	0.76	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-163	220	J	610	1.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-164	14	J M	200	0.84	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-165	10	U	200	1.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-166	22	J M	400	1.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-167	11	J	20	0.79	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-168	190	J M	400	0.94	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-169	2.5	J M	20	0.87	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-170	220	M	200	2.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-171	42	J	400	2.0	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-172	30	J	200	2.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-173	42	J	400	2.0	pg/L		10/25/19 08:29	11/04/19 20:17	1

Client Sample ID: OF-2

Lab Sample ID: 580-90149-2

Date Collected: 10/16/19 12:58
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-174	150	J M	200	1.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-175	6.5	J	200	0.67	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-176	11	J	200	0.51	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-177	83	J	200	1.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-178	30	J	200	0.69	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-179	32	J	200	0.41	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-180	410	M	400	1.8	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-181	10	U	200	1.8	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-182	10	U	200	0.55	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-183	74	J M	200	1.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-184	20	U	200	0.47	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-185	22	J M	200	1.9	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-186	10	U	200	0.41	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-187	170	J	200	0.56	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-188	10	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-189	10	J M	20	0.47	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-190	49	J M	200	1.7	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-191	7.3	J M	200	1.7	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-192	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-193	410	M	400	1.8	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-194	150	J	200	0.53	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-195	55	J	200	0.54	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-196	65	J	200	0.61	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-197	3.9	J M	200	0.40	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-198	120	J	400	0.55	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-199	120	J	400	0.55	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-200	13	J M	200	0.43	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-201	12	J	200	0.47	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-202	15	J	200	0.50	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-203	68	J	200	0.49	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-204	20	U	200	0.40	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-205	9.5	J	200	0.45	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-206	42	J	200	2.1	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-207	5.5	J	200	1.2	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-208	8.4	J	200	1.3	pg/L		10/25/19 08:29	11/04/19 20:17	1
PCB-209	6.2	J M	200	0.45	pg/L		10/25/19 08:29	11/04/19 20:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*62*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-3L	*66*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-4L	*62*		*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-15L	*68*		*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-19L	*59*		*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-37L	*80*		*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-54L	*85*		*5 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-77L	*79*		*10 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-81L	*73*		*10 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-104L	*77*	*M*	*10 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-105L	*81*	*M*	*10 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*
PCB-114L	*79*		*10 - 145*	*10/25/19 08:29*	*11/04/19 20:17*	*1*

Client Sample ID: OF-2

Lab Sample ID: 580-90149-2

Date Collected: 10/16/19 12:58
Date Received: 10/18/19 09:15

Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-118L	80		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-123L	78		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-126L	87		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-155L	72		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-156L	76		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-156L/157L	76		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-157L	76		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-167L	73		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-169L	82		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-188L	81	M	10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-189L	77		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-202L	71		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-205L	82		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-206L	73		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-208L	72		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-209L	78		10 - 145	10/25/19 08:29	11/04/19 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	100		5 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-111L	90		10 - 145	10/25/19 08:29	11/04/19 20:17	1
PCB-178L	95		10 - 145	10/25/19 08:29	11/04/19 20:17	1

Default Detection Limits

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Prep: 3520C

Analyte	LOQ	DL	Units
2-Methylnaphthalene	0.030	0.0060	ug/L
Acenaphthene	0.030	0.0060	ug/L
Acenaphthylene	0.030	0.0060	ug/L
Anthracene	0.060	0.0060	ug/L
Benzo[a]anthracene	0.060	0.0060	ug/L
Benzo[a]pyrene	0.060	0.0060	ug/L
Benzo[b]fluoranthene	0.060	0.013	ug/L
Benzo[g,h,i]perylene	0.060	0.0060	ug/L
Benzo[k]fluoranthene	0.060	0.0060	ug/L
Chrysene	0.060	0.015	ug/L
Dibenz(a,h)anthracene	0.060	0.013	ug/L
Fluoranthene	0.060	0.015	ug/L
Fluorene	0.060	0.0060	ug/L
Indeno[1,2,3-cd]pyrene	0.030	0.0060	ug/L
Naphthalene	0.10	0.025	ug/L
Phenanthrene	0.060	0.017	ug/L
Pyrene	0.030	0.0060	ug/L

Method: Organotins - Organotins, PSEP (GC/MS)

Prep: Organotin

Analyte	LOQ	DL	Units
Dibutyltin	0.30	0.056	ug/L
Monobutyltin	0.30	0.061	ug/L
Tetra-n-butyltin	0.30	0.10	ug/L
Tributyltin	0.30	0.046	ug/L

Method: Organotins - Organotins, PSEP (GC/MS) - Dissolved

Prep: Organotin

Analyte	LOQ	DL	Units
Dibutyltin	0.30	0.056	ug/L
Monobutyltin	0.30	0.061	ug/L
Tetra-n-butyltin	0.30	0.10	ug/L
Tributyltin	0.30	0.046	ug/L

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	LOQ	DL	Units
Gasoline	0.25	0.10	mg/L

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Prep: 3510C

Analyte	LOQ	DL	Units
#2 Diesel (C10-C24)	0.11	0.065	mg/L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Prep: HRMS-Sep

Analyte	LOQ		Units
PCB-1	200		pg/L
PCB-10	200		pg/L
PCB-100	400		pg/L
PCB-101	600		pg/L

Default Detection Limits

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Prep: HRMS-Sep

Analyte	LOQ	Units
PCB-102	400	pg/L
PCB-103	200	pg/L
PCB-104	200	pg/L
PCB-105	20	pg/L
PCB-106	200	pg/L
PCB-107	400	pg/L
PCB-108	1200	pg/L
PCB-109	200	pg/L
PCB-11	200	pg/L
PCB-110	400	pg/L
PCB-111	200	pg/L
PCB-112	200	pg/L
PCB-113	600	pg/L
PCB-114	20	pg/L
PCB-115	400	pg/L
PCB-116	600	pg/L
PCB-117	600	pg/L
PCB-118	20	pg/L
PCB-119	1200	pg/L
PCB-12	400	pg/L
PCB-120	200	pg/L
PCB-121	200	pg/L
PCB-122	200	pg/L
PCB-123	20	pg/L
PCB-124	400	pg/L
PCB-125	1200	pg/L
PCB-126	20	pg/L
PCB-127	200	pg/L
PCB-128	400	pg/L
PCB-129	600	pg/L
PCB-13	400	pg/L
PCB-130	200	pg/L
PCB-131	200	pg/L
PCB-132	200	pg/L
PCB-133	200	pg/L
PCB-134	400	pg/L
PCB-135	400	pg/L
PCB-136	200	pg/L
PCB-137	200	pg/L
PCB-138	600	pg/L
PCB-139	400	pg/L
PCB-14	200	pg/L
PCB-140	400	pg/L
PCB-141	200	pg/L
PCB-142	200	pg/L
PCB-143	400	pg/L
PCB-144	200	pg/L
PCB-145	200	pg/L
PCB-146	200	pg/L
PCB-147	400	pg/L
PCB-148	200	pg/L
PCB-149	400	pg/L

Default Detection Limits

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Prep: HRMS-Sep

Analyte	LOQ	Units
PCB-15	200	pg/L
PCB-150	200	pg/L
PCB-151	400	pg/L
PCB-152	200	pg/L
PCB-153	400	pg/L
PCB-154	200	pg/L
PCB-155	200	pg/L
PCB-156	40	pg/L
PCB-157	40	pg/L
PCB-158	200	pg/L
PCB-159	200	pg/L
PCB-16	200	pg/L
PCB-160	200	pg/L
PCB-161	200	pg/L
PCB-162	200	pg/L
PCB-163	600	pg/L
PCB-164	200	pg/L
PCB-165	200	pg/L
PCB-166	400	pg/L
PCB-167	20	pg/L
PCB-168	400	pg/L
PCB-169	20	pg/L
PCB-17	200	pg/L
PCB-170	200	pg/L
PCB-171	400	pg/L
PCB-172	200	pg/L
PCB-173	400	pg/L
PCB-174	200	pg/L
PCB-175	200	pg/L
PCB-176	200	pg/L
PCB-177	200	pg/L
PCB-178	200	pg/L
PCB-179	200	pg/L
PCB-18	400	pg/L
PCB-180	400	pg/L
PCB-181	200	pg/L
PCB-182	200	pg/L
PCB-183	200	pg/L
PCB-184	200	pg/L
PCB-185	200	pg/L
PCB-186	200	pg/L
PCB-187	200	pg/L
PCB-188	200	pg/L
PCB-189	20	pg/L
PCB-19	200	pg/L
PCB-190	200	pg/L
PCB-191	200	pg/L
PCB-192	200	pg/L
PCB-193	400	pg/L
PCB-194	200	pg/L
PCB-195	200	pg/L
PCB-196	200	pg/L

Default Detection Limits

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Prep: HRMS-Sep

Analyte	LOQ	Units
PCB-197	200	pg/L
PCB-198	400	pg/L
PCB-199	400	pg/L
PCB-2	200	pg/L
PCB-20	400	pg/L
PCB-200	200	pg/L
PCB-201	200	pg/L
PCB-202	200	pg/L
PCB-203	200	pg/L
PCB-204	200	pg/L
PCB-205	200	pg/L
PCB-206	200	pg/L
PCB-207	200	pg/L
PCB-208	200	pg/L
PCB-209	200	pg/L
PCB-21	400	pg/L
PCB-22	200	pg/L
PCB-23	200	pg/L
PCB-24	200	pg/L
PCB-25	200	pg/L
PCB-26	400	pg/L
PCB-27	200	pg/L
PCB-28	400	pg/L
PCB-29	400	pg/L
PCB-3	200	pg/L
PCB-30	400	pg/L
PCB-31	200	pg/L
PCB-32	200	pg/L
PCB-33	400	pg/L
PCB-34	200	pg/L
PCB-35	200	pg/L
PCB-36	200	pg/L
PCB-37	200	pg/L
PCB-38	200	pg/L
PCB-39	200	pg/L
PCB-4	200	pg/L
PCB-40	400	pg/L
PCB-41	200	pg/L
PCB-42	200	pg/L
PCB-43	200	pg/L
PCB-44	600	pg/L
PCB-45	200	pg/L
PCB-46	200	pg/L
PCB-47	600	pg/L
PCB-48	200	pg/L
PCB-49	400	pg/L
PCB-5	200	pg/L
PCB-50	400	pg/L
PCB-51	200	pg/L
PCB-52	200	pg/L
PCB-53	400	pg/L
PCB-54	200	pg/L

Default Detection Limits

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Prep: HRMS-Sep

Analyte	LOQ	Units
PCB-55	200	pg/L
PCB-56	200	pg/L
PCB-57	200	pg/L
PCB-58	200	pg/L
PCB-59	600	pg/L
PCB-6	200	pg/L
PCB-60	200	pg/L
PCB-61	800	pg/L
PCB-62	600	pg/L
PCB-63	200	pg/L
PCB-64	200	pg/L
PCB-65	600	pg/L
PCB-66	200	pg/L
PCB-67	200	pg/L
PCB-68	200	pg/L
PCB-69	400	pg/L
PCB-7	200	pg/L
PCB-70	800	pg/L
PCB-71	400	pg/L
PCB-72	200	pg/L
PCB-73	200	pg/L
PCB-74	800	pg/L
PCB-75	600	pg/L
PCB-76	800	pg/L
PCB-77	20	pg/L
PCB-78	200	pg/L
PCB-79	200	pg/L
PCB-8	200	pg/L
PCB-80	200	pg/L
PCB-81	20	pg/L
PCB-82	200	pg/L
PCB-83	200	pg/L
PCB-84	200	pg/L
PCB-85	600	pg/L
PCB-86	1200	pg/L
PCB-87	1200	pg/L
PCB-88	400	pg/L
PCB-89	200	pg/L
PCB-9	200	pg/L
PCB-90	600	pg/L
PCB-91	400	pg/L
PCB-92	200	pg/L
PCB-93	400	pg/L
PCB-94	200	pg/L
PCB-95	200	pg/L
PCB-96	200	pg/L
PCB-97	1200	pg/L
PCB-98	400	pg/L
PCB-99	200	pg/L

Surrogate Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (58-132)	2MN (40-140)	FLN10 (40-140)
580-90149-1	OF-1	52 Q	45	57
580-90149-2	OF-2	69	43	67
580-90149-2 MS	OF-2	72	55	70
580-90149-2 MSD	OF-2	70	41	64
LCS 580-314954/2-A	Lab Control Sample	74	63	70
LCSD 580-314954/3-A	Lab Control Sample Dup	72	62	68
MB 580-314954/1-A	Method Blank	72	56	69

Surrogate Legend

TPHL = Terphenyl-d14
2MN = 2-methylnaphthalene-d10
FLN10 = Fluoranthene-d10 (Surr)

Method: Organotins - Organotins, PSEP (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TPTT (10-142)
580-90149-1	OF-1	61
580-90149-2	OF-2	63
580-90149-2	OF-2	70
580-90149-2 MS	OF-2	67
580-90149-2 MS	OF-2	82
580-90149-2 MSD	OF-2	67
580-90149-2 MSD	OF-2	80
LCS 580-315614/2-A	Lab Control Sample	99
LCSD 580-315614/3-A	Lab Control Sample Dup	75
MB 580-315614/1-A	Method Blank	60

Surrogate Legend

TPTT = Tripentyltin

Method: Organotins - Organotins, PSEP (GC/MS)

Matrix: Water **Prep Type: Dissolved**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TPTT (10-142)
580-90149-1	OF-1	70
580-90149-2	OF-2	71
580-90149-2 MS	OF-2	72
580-90149-2 MSD	OF-2	64
MB 580-314899/1-B	Method Blank	63

Surrogate Legend

TPTT = Tripentyltin

Surrogate Summary

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	TFT1
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
580-90149-1	OF-1	105	113
580-90149-2	OF-2	109	105
580-90149-2 MS	OF-2	108	105
580-90149-2 MSD	OF-2	110	97
LCS 580-314837/8	Lab Control Sample	113	92
LCSD 580-314837/9	Lab Control Sample Dup	110	90
MB 580-314837/7	Method Blank	100	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
TFT = Trifluorotoluene (Surr)

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH
Lab Sample ID	Client Sample ID	(50-150)
580-90149-1	OF-1	99
580-90149-1	OF-1	84
580-90149-2	OF-2	155 Q
580-90149-2	OF-2	77
580-90149-2 MS	OF-2	108
580-90149-2 MS	OF-2	96
580-90149-2 MSD	OF-2	91
580-90149-2 MSD	OF-2	95
LCS 580-315552/2-A	Lab Control Sample	100
LCS 580-316340/2-A	Lab Control Sample	104
LCSD 580-315552/3-A	Lab Control Sample Dup	95
LCSD 580-316340/3-A	Lab Control Sample Dup	105
MB 580-316340/1-A	Method Blank	89

Surrogate Legend

OTPH = o-Terphenyl

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L	PCB111L	PCB178L
Lab Sample ID	Client Sample ID	(5-145)	(10-145)	(10-145)
580-90149-1	OF-1	99	88	92
580-90149-2	OF-2	100	90	95
580-90149-2 MS	OF-2	101	89	95
580-90149-2 MSD	OF-2	96	88	93
MB 320-333654/1-A	Method Blank	98	89	97

Surrogate Legend

PCB28L = PCB-28L
PCB111L = PCB-111L
PCB178L = PCB-178L

Surrogate Summary

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**PCB28L (15-145)**	**PCB111L (40-145)**	**PCB178L (40-145)**					
LCS 320-333654/2-A	Lab Control Sample	101	90	95					

Surrogate Legend

PCB28L = PCB-28L
PCB111L = PCB-111L
PCB178L = PCB-178L

Isotope Dilution Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
580-90149-1	OF-1	67 M	70 M	68	71	65 M	81	88	72
580-90149-2	OF-2	62 M	66 M	62	68	59	80	85	79
580-90149-2 MS	OF-2	65 M	68 M	67	73	66	88	87	88
580-90149-2 MSD	OF-2	64 M	69 M	65	73	63	92	90	79
MB 320-333654/1-A	Method Blank	63 M	67 M	63 M	66	63	80	84	79

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
580-90149-1	OF-1	68	84	80 M	73	76	76	90	69
580-90149-2	OF-2	73	77 M	81 M	79	80	78	87	72
580-90149-2 MS	OF-2	84 M	79	88 M	85	86	85	92	78
580-90149-2 MSD	OF-2	74	84 M	86	83 M	83 M	82	92	79
MB 320-333654/1-A	Method Blank	73	74 M	85	81	82	80	93	67

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB156L (10-145)	B-156L/15 (10-145)	PCB157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)
580-90149-1	OF-1	75	75	75	73	86	63 M	76	64
580-90149-2	OF-2	76	76	76	73	82	81 M	77	71
580-90149-2 MS	OF-2	75	75	75	74	85	79 M	82	60
580-90149-2 MSD	OF-2	84	84	84	81	93	77	86	64
MB 320-333654/1-A	Method Blank	84	84	84	80	96	75	86	72

		Percent Isotope Dilution Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	PCB205L (10-145)	PCB206L (10-145)	PCB208L (10-145)	PCB209L (10-145)
580-90149-1	OF-1	84	78	73	80
580-90149-2	OF-2	82	73	72	78
580-90149-2 MS	OF-2	89	80	76	81
580-90149-2 MSD	OF-2	91	83	79	85
MB 320-333654/1-A	Method Blank	94	85	81	90

Surrogate Legend

PCB1L = PCB-1L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB-156L/157L = PCB-156L/157L

PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB1L	PCB3L	PCB4L	PCB15L	PCB19L	PCB37L	PCB54L	PCB77L
Lab Sample ID	Client Sample ID	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(40-145)
LCS 320-333654/2-A	Lab Control Sample	60 M	65 M	61	65	58	83	82	74

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB81L	PCB104L	PCB105L	P114L	PCB118L	PCB123L	PCB126L	PCB155L
Lab Sample ID	Client Sample ID	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-333654/2-A	Lab Control Sample	70	84 M	87 M	83	85	82	95	74

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB156L	B-156L/15	PCB157L	PCB167L	PCB169L	PCB188L	PCB189L	PCB202L
Lab Sample ID	Client Sample ID	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-333654/2-A	Lab Control Sample	85	85	85	83	90	81	84	72

		Percent Isotope Dilution Recovery (Acceptance Limits)			
		PCB205L	PCB206L	PCB208L	PCB209L
Lab Sample ID	Client Sample ID	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-333654/2-A	Lab Control Sample	90	84	77	84

Surrogate Legend

PCB1L = PCB-1L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB-156L/157L = PCB-156L/157L
PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L

Isotope Dilution Summary

Client: Katahdin Analytical Services
Job ID: 580-90149-1
Project/Site: DOD, Stormwater

PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-314954/1-A
Matrix: Water
Analysis Batch: 315201

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314954

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.080	U M	0.10	0.025	ug/L		10/23/19 11:34	10/25/19 15:59	1
2-Methylnaphthalene	0.020	U M	0.030	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Acenaphthylene	0.020	U M	0.030	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Acenaphthene	0.020	U M	0.030	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Fluorene	0.020	U M	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Phenanthrene	0.040	U	0.060	0.017	ug/L		10/23/19 11:34	10/25/19 15:59	1
Anthracene	0.020	U M	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Fluoranthene	0.040	U M	0.060	0.015	ug/L		10/23/19 11:34	10/25/19 15:59	1
Pyrene	0.020	U M	0.030	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Benzo[a]anthracene	0.020	U M	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Chrysene	0.040	U M	0.060	0.015	ug/L		10/23/19 11:34	10/25/19 15:59	1
Benzo[b]fluoranthene	0.040	U	0.060	0.013	ug/L		10/23/19 11:34	10/25/19 15:59	1
Benzo[k]fluoranthene	0.020	U	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Benzo[a]pyrene	0.020	U M	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Indeno[1,2,3-cd]pyrene	0.020	U	0.030	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1
Dibenz(a,h)anthracene	0.040	U	0.060	0.013	ug/L		10/23/19 11:34	10/25/19 15:59	1
Benzo[g,h,i]perylene	0.020	U	0.060	0.0060	ug/L		10/23/19 11:34	10/25/19 15:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*58 - 132*	*10/23/19 11:34*	*10/25/19 15:59*	*1*
2-methylnaphthalene-d10	*56*		*40 - 140*	*10/23/19 11:34*	*10/25/19 15:59*	*1*
Fluoranthene-d10 (Surr)	*69*		*40 - 140*	*10/23/19 11:34*	*10/25/19 15:59*	*1*

Lab Sample ID: LCS 580-314954/2-A
Matrix: Water
Analysis Batch: 315201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	4.00	2.23		ug/L		56	43 - 114
2-Methylnaphthalene	4.00	3.45		ug/L		86	39 - 114
Acenaphthylene	4.00	2.41		ug/L		60	35 - 121
Acenaphthene	4.00	2.43		ug/L		61	48 - 114
Fluorene	4.00	2.76		ug/L		69	50 - 118
Phenanthrene	4.00	2.61		ug/L		65	53 - 115
Anthracene	4.00	2.53		ug/L		63	53 - 119
Fluoranthene	4.00	2.90		ug/L		72	58 - 120
Pyrene	4.00	2.75		ug/L		69	53 - 121
Benzo[a]anthracene	4.00	3.22		ug/L		80	59 - 120
Chrysene	4.00	2.73		ug/L		68	57 - 120
Benzo[b]fluoranthene	4.00	3.01		ug/L		75	53 - 126
Benzo[k]fluoranthene	4.00	2.59		ug/L		65	54 - 125
Benzo[a]pyrene	4.00	2.43		ug/L		61	53 - 120
Indeno[1,2,3-cd]pyrene	4.00	3.69	M	ug/L		92	48 - 130
Dibenz(a,h)anthracene	4.00	3.25	M	ug/L		81	44 - 131
Benzo[g,h,i]perylene	4.00	3.11		ug/L		78	44 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*74*		*58 - 132*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-314954/2-A
Matrix: Water
Analysis Batch: 315201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314954

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-methylnaphthalene-d10	*63*		*40 - 140*
Fluoranthene-d10 (Surr)	*70*		*40 - 140*

Lab Sample ID: LCSD 580-314954/3-A
Matrix: Water
Analysis Batch: 315201

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 314954

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	4.00	2.32		ug/L		58	43 - 114	4	20
2-Methylnaphthalene	4.00	3.37		ug/L		84	39 - 114	2	20
Acenaphthylene	4.00	2.35		ug/L		59	35 - 121	3	20
Acenaphthene	4.00	2.44		ug/L		61	48 - 114	1	20
Fluorene	4.00	2.80		ug/L		70	50 - 118	1	20
Phenanthrene	4.00	2.55		ug/L		64	53 - 115	2	20
Anthracene	4.00	2.37		ug/L		59	53 - 119	6	20
Fluoranthene	4.00	2.74		ug/L		69	58 - 120	5	20
Pyrene	4.00	2.59		ug/L		65	53 - 121	6	20
Benzo[a]anthracene	4.00	3.04		ug/L		76	59 - 120	6	20
Chrysene	4.00	2.58		ug/L		65	57 - 120	6	20
Benzo[b]fluoranthene	4.00	2.87		ug/L		72	53 - 126	5	20
Benzo[k]fluoranthene	4.00	2.36		ug/L		59	54 - 125	9	20
Benzo[a]pyrene	4.00	2.23		ug/L		56	53 - 120	9	20
Indeno[1,2,3-cd]pyrene	4.00	3.21	M	ug/L		80	48 - 130	14	20
Dibenz(a,h)anthracene	4.00	3.04	M	ug/L		76	44 - 131	7	20
Benzo[g,h,i]perylene	4.00	2.87		ug/L		72	44 - 128	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*72*		*58 - 132*
2-methylnaphthalene-d10	*62*		*40 - 140*
Fluoranthene-d10 (Surr)	*68*		*40 - 140*

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 315201

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 314954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.094	U M J1	4.92	1.82	J1	ug/L		37	43 - 114
2-Methylnaphthalene	0.013	J M	4.92	2.58		ug/L		52	39 - 114
Acenaphthylene	0.024	U M J1	4.92	1.81		ug/L		37	35 - 121
Acenaphthene	0.024	U M J1	4.92	1.40	J1	ug/L		28	48 - 114
Fluorene	0.024	U M J1	4.92	1.91	J1	ug/L		39	50 - 118
Phenanthrene	0.047	U J1	4.92	2.52	J1	ug/L		51	53 - 115
Anthracene	0.024	U M J1	4.92	2.78		ug/L		57	53 - 119
Fluoranthene	0.041	J M	4.92	3.48		ug/L		70	58 - 120
Pyrene	0.034	J M	4.92	3.37		ug/L		68	53 - 121
Benzo[a]anthracene	0.022	J M	4.92	4.08		ug/L		83	59 - 120
Chrysene	0.028	J M	4.92	3.32		ug/L		67	57 - 120
Benzo[b]fluoranthene	0.018	M J1	4.92	3.71	M	ug/L		75	53 - 126

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 580-90149-2 MS — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 315201 — **Prep Batch: 314954**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[k]fluoranthene	0.0097	J M	4.92	2.94	M	ug/L		60	54 - 125
Benzo[a]pyrene	0.012	J M	4.92	3.22		ug/L		65	53 - 120
Indeno[1,2,3-cd]pyrene	0.011	J M	4.92	4.09	M	ug/L		83	48 - 130
Dibenz(a,h)anthracene	0.047	U	4.92	3.72	M	ug/L		76	44 - 131
Benzo[g,h,i]perylene	0.0079	J M	4.92	3.44		ug/L		70	44 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*72*		*58 - 132*
2-methylnaphthalene-d10	*55*		*40 - 140*
Fluoranthene-d10 (Surr)	*70*		*40 - 140*

Lab Sample ID: 580-90149-2 MSD — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 315201 — **Prep Batch: 314954**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	0.094	U M J1	4.92	1.43	J1	ug/L		29	43 - 114	24	20
2-Methylnaphthalene	0.013	J M	4.92	2.12		ug/L		43	39 - 114	20	20
Acenaphthylene	0.024	U M J1	4.92	1.53	J1	ug/L		31	35 - 121	17	20
Acenaphthene	0.024	U M J1	4.92	1.17	J1	ug/L		24	48 - 114	18	20
Fluorene	0.024	U M J1	4.92	1.57	J1	ug/L		32	50 - 118	19	20
Phenanthrene	0.047	U J1	4.92	2.16	J1	ug/L		44	53 - 115	16	20
Anthracene	0.024	U M J1	4.92	2.36	J1	ug/L		48	53 - 119	16	20
Fluoranthene	0.041	J M	4.92	3.15		ug/L		63	58 - 120	10	20
Pyrene	0.034	J M	4.92	3.07		ug/L		62	53 - 121	9	20
Benzo[a]anthracene	0.022	J M	4.92	3.90		ug/L		79	59 - 120	5	20
Chrysene	0.028	J M	4.92	3.19		ug/L		64	57 - 120	4	20
Benzo[b]fluoranthene	0.018	M J1	4.92	2.98	J1	ug/L		60	53 - 126	22	20
Benzo[k]fluoranthene	0.0097	J M	4.92	3.28	M	ug/L		66	54 - 125	11	20
Benzo[a]pyrene	0.012	J M	4.92	3.06		ug/L		62	53 - 120	5	20
Indeno[1,2,3-cd]pyrene	0.011	J M	4.92	4.05	M	ug/L		82	48 - 130	1	20
Dibenz(a,h)anthracene	0.047	U	4.92	3.66	M	ug/L		74	44 - 131	1	20
Benzo[g,h,i]perylene	0.0079	J M	4.92	3.39		ug/L		69	44 - 128	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*70*		*58 - 132*
2-methylnaphthalene-d10	*41*		*40 - 140*
Fluoranthene-d10 (Surr)	*64*		*40 - 140*

Method: Organotins - Organotins, PSEP (GC/MS)

Lab Sample ID: MB 580-315614/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 316009 — **Prep Batch: 315614**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.15	U M	0.30	0.056	ug/L		10/31/19 11:02	11/05/19 13:19	1
Monobutyltin	0.13	U	0.30	0.061	ug/L		10/31/19 11:02	11/05/19 13:19	1

Method: Organotins - Organotins, PSEP (GC/MS) (Continued)

Lab Sample ID: MB 580-315614/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 316009 — **Prep Batch: 315614**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Tetra-n-butyltin	0.20	U	0.30	0.10	ug/L		10/31/19 11:02	11/05/19 13:19	1
Tributyltin	0.18	U M	0.30	0.046	ug/L		10/31/19 11:02	11/05/19 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*60*		*10 - 142*	*10/31/19 11:02*	*11/05/19 13:19*	*1*

Lab Sample ID: LCS 580-315614/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 316515 — **Prep Batch: 315614**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Monobutyltin	1.25	0.149	J M	ug/L		12	10 - 150
Tetra-n-butyltin	2.00	1.49		ug/L		74	10 - 110
Tributyltin	1.78	1.78	M	ug/L		100	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tripentyltin	*99*		*10 - 142*

Lab Sample ID: LCSD 580-315614/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 316009 — **Prep Batch: 315614**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	1.54	1.50	M	ug/L		97	10 - 150	12	35
Monobutyltin	1.25	1.06	Q	ug/L		85	10 - 150	163	35
Tetra-n-butyltin	2.00	1.34		ug/L		67	10 - 110	32	35
Tributyltin	1.78	1.83		ug/L		103	11 - 150	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tripentyltin	*75*		*10 - 142*

Lab Sample ID: 580-90149-2 MS — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 316009 — **Prep Batch: 315614**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibutyltin	0.17	U H M	1.67	0.967	H M	ug/L		58	10 - 150
Monobutyltin	0.14	U H J1 Q	1.36	0.14	U H J1	ug/L		0	10 - 150
Tetra-n-butyltin	0.22	U H M	2.17	0.922	H	ug/L		43	10 - 110
Tributyltin	0.20	U H M	1.93	1.84	H	ug/L		95	11 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tripentyltin	*67*		*10 - 142*

Method: Organotins - Organotins, PSEP (GC/MS) (Continued)

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 316199

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 315614

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tripentyltin	*82*		*10 - 142*

Lab Sample ID: 580-90149-2 MSD
Matrix: Water
Analysis Batch: 316009

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 315614

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	0.17	U H M	1.63	0.994	H M	ug/L		61	10 - 150	3	35
Monobutyltin	0.14	U H J1 Q	1.32	0.13	U H J1	ug/L		0	10 - 150	NC	35
Tetra-n-butyltin	0.22	U H M	2.11	1.06	H	ug/L		50	10 - 110	13	35
Tributyltin	0.20	U H M	1.89	1.79	H	ug/L		95	11 - 150	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tripentyltin	*67*		*10 - 142*

Lab Sample ID: 580-90149-2 MSD
Matrix: Water
Analysis Batch: 316199

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 315614

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tripentyltin	*80*		*10 - 142*

Lab Sample ID: MB 580-314899/1-B
Matrix: Water
Analysis Batch: 315800

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 314900

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibutyltin	0.15	U M	0.30	0.056	ug/L		10/22/19 16:38	11/01/19 18:30	1
Monobutyltin	0.13	U	0.30	0.061	ug/L		10/22/19 16:38	11/01/19 18:30	1
Tetra-n-butyltin	0.20	U M	0.30	0.10	ug/L		10/22/19 16:38	11/01/19 18:30	1
Tributyltin	0.18	U M	0.30	0.046	ug/L		10/22/19 16:38	11/01/19 18:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*63*		*10 - 142*	*10/22/19 16:38*	*11/01/19 18:30*	*1*

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 315800

Client Sample ID: OF-2
Prep Type: Dissolved
Prep Batch: 314900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibutyltin	0.15	U M	1.55	0.900		ug/L		58	10 - 150
Monobutyltin	0.13	U J1	1.26	0.236	J	ug/L		19	10 - 150
Tetra-n-butyltin	0.20	U M	2.02	1.10		ug/L		55	10 - 110
Tributyltin	0.18	U M	1.80	1.90		ug/L		105	11 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tripentyltin	*72*		*10 - 142*

Method: Organotins - Organotins, PSEP (GC/MS)

Lab Sample ID: 580-90149-2 MSD — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 315800 — **Prep Batch: 314900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibutyltin	0.15	U M	1.54	0.773		ug/L		50	10 - 150	15	35
Monobutyltin	0.13	U J1	1.25	0.152	J J1	ug/L		12	10 - 150	44	35
Tetra-n-butyltin	0.20	U M	2.00	0.995		ug/L		50	10 - 110	10	35
Tributyltin	0.18	U M	1.78	1.71		ug/L		96	11 - 150	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tripentyltin	*64*		*10 - 142*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-314837/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314837

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	0.20	U	0.25	0.10	mg/L			10/22/19 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*50 - 150*		*10/22/19 11:27*	*1*
Trifluorotoluene (Surr)	*97*		*50 - 150*		*10/22/19 11:27*	*1*

Lab Sample ID: LCS 580-314837/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	1.00	0.976		mg/L		98	79 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*50 - 150*
Trifluorotoluene (Surr)	*92*		*50 - 150*

Lab Sample ID: LCSD 580-314837/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314837

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.980		mg/L		98	79 - 120	0	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*50 - 150*
Trifluorotoluene (Surr)	*90*		*50 - 150*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-90149-2 MS — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314837

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	0.20	U	1.00	1.13		mg/L		113	79 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*50 - 150*
Trifluorotoluene (Surr)	*105*		*50 - 150*

Lab Sample ID: 580-90149-2 MSD — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314837

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	0.20	U	1.00	1.06		mg/L		106	79 - 120	7	10

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*50 - 150*
Trifluorotoluene (Surr)	*97*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: LCS 580-315552/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 315684 — **Prep Batch: 315552**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)			2.00	1.80		mg/L		90	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*100*		*50 - 150*

Lab Sample ID: LCSD 580-315552/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 315684 — **Prep Batch: 315552**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			2.00	1.72		mg/L		86	50 - 120	4	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*95*		*50 - 150*

Lab Sample ID: 580-90149-2 MS — **Client Sample ID: OF-2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 315684 — **Prep Batch: 315552**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	0.11	J Q	2.43	2.17		mg/L		85	50 - 120

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 315684

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 315552

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*108*		*50 - 150*

Lab Sample ID: 580-90149-2 MSD
Matrix: Water
Analysis Batch: 315684

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 315552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.11	J Q	2.15	1.77		mg/L		77	50 - 120	20	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*91*		*50 - 150*

Lab Sample ID: MB 580-316340/1-A
Matrix: Water
Analysis Batch: 316420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 316340

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.10	U	0.11	0.065	mg/L		11/08/19 08:56	11/09/19 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*11/08/19 08:56*	*11/09/19 23:19*	*1*

Lab Sample ID: LCS 580-316340/2-A
Matrix: Water
Analysis Batch: 316420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 316340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	2.00	1.82		mg/L		91	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*104*		*50 - 150*

Lab Sample ID: LCSD 580-316340/3-A
Matrix: Water
Analysis Batch: 316420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 316340

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	2.00	1.79		mg/L		89	50 - 120	2	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*105*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 316420

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 316340

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	0.074	J H	2.25	2.00	H	mg/L		85	50 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*96*		*50 - 150*

Lab Sample ID: 580-90149-2 MSD
Matrix: Water
Analysis Batch: 316420

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 316340

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.074	J H	2.27	1.86	H	mg/L		79	50 - 120	7	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*95*		*50 - 150*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Analyte	MB Result	MB Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	10	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-2	20	U	200	0.39	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-3	10	U	200	0.44	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-4	25	U	200	12	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-5	25	U	200	12	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-6	25	U	200	9.7	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-7	25	U	200	11	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-8	25	U	200	9.2	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-9	50	U	200	11	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-10	50	U	200	7.9	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-11	25	U	200	11	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-12	40	U	400	12	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-13	40	U	400	12	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-14	25	U	200	12	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-15	20	U	200	13	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-16	50	U	200	2.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-17	10	U	200	2.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-18	50	U	400	1.8	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-19	10	U	200	2.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-20	40	U	400	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-21	40	U	400	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-22	10	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-23	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-24	20	U	200	1.8	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-25	20	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-26	40	U	400	1.6	pg/L		10/25/19 08:29	11/04/19 16:32	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Analyte	MB Result	MB Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-27	20	U	200	1.9	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-28	40	U	400	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-29	40	U	400	1.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-30	50	U	400	1.8	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-31	20	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-32	10	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-33	40	U	400	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-34	20	U	200	1.7	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-35	10	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-36	10	U	200	1.4	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-37	10	U	200	2.0	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-38	20	U	200	1.5	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-39	10	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-40	20	U	400	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-41	10	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-42	20	U	200	0.98	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-43	10	U	200	0.95	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-44	5.74	J M	600	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-45	20	U	200	1.3	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-46	20	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-47	5.74	J M	600	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-48	20	U	200	0.94	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-49	40	U	400	0.80	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-50	40	U	400	0.94	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-51	20	U	200	0.88	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-52	1.79	J M	200	0.89	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-53	40	U	400	0.94	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-54	10	U	200	1.0	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-55	10	U	200	0.59	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-56	20	U	200	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-57	10	U	200	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-58	20	U	200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-59	60	U	600	0.75	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-60	20	U	200	0.76	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-61	40	U	800	0.65	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-62	60	U	600	0.75	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-63	20	U	200	0.77	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-64	20	U	200	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-65	5.74	J M	600	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-66	10	U	200	0.71	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-67	20	U	200	0.58	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-68	20	U	200	0.67	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-69	40	U	400	0.80	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-70	40	U	800	0.65	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-71	20	U	400	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-72	20	U	200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-73	20	U	200	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-74	40	U	800	0.65	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-75	60	U	600	0.75	pg/L		10/25/19 08:29	11/04/19 16:32	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Analyte	MB Result	MB Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-76	40	U	800	0.65	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-77	10	U	20	1.0	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-78	10	U	200	0.74	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-79	10	U	200	0.66	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-80	10	U	200	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-81	10	U	20	1.1	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-82	10	U	200	0.86	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-83	20	U	200	1.2	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-84	20	U	200	0.98	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-85	60	U	600	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-86	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-87	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-88	20	U	400	0.84	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-89	10	U	200	0.78	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-90	30	U	600	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-91	20	U	400	0.84	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-92	10	U	200	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-93	20	U	400	0.83	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-94	20	U	200	0.93	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-95	20	U M	200	0.85	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-96	20	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-97	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-98	20	U	400	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-99	20	U	200	0.60	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-100	20	U	400	0.83	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-101	30	U	600	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-102	20	U	400	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-103	10	U	200	0.80	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-104	10	U	200	0.60	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-105	20	U	20	0.67	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-106	20	U	200	0.51	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-107	20	U	400	0.60	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-108	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-109	10	U	200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-110	20	U	400	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-111	20	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-112	10	U	200	0.46	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-113	30	U	600	0.69	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-114	10	U	20	0.71	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-115	20	U	400	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-116	60	U	600	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-117	60	U	600	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-118	10	U	20	0.66	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-119	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-120	10	U	200	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-121	10	U	200	0.52	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-122	10	U	200	0.75	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-123	10	U	20	0.70	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-124	20	U	400	0.60	pg/L		10/25/19 08:29	11/04/19 16:32	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Analyte	MB Result	MB Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-125	60	U	1200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-126	10	U	20	0.66	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-127	20	U	200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-128	20	U	400	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-129	1.19	J M	600	0.52	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-130	10	U	200	0.68	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-131	20	U	200	0.64	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-132	20	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-133	10	U	200	0.54	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-134	40	U	400	0.61	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-135	40	U	400	0.54	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-136	10	U	200	0.44	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-137	20	U	200	0.61	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-138	1.19	J M	600	0.52	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-139	20	U	400	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-140	20	U	400	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-141	10	U	200	0.54	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-142	10	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-143	40	U	400	0.61	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-144	10	U	200	0.53	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-145	10	U	200	0.38	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-146	20	U	200	0.50	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-147	40	U	400	0.49	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-148	10	U	200	0.55	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-149	40	U	400	0.49	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-150	20	U	200	0.38	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-151	40	U	400	0.54	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-152	10	U	200	0.37	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-153	40	U	400	0.43	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-154	10	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-155	10	U	200	0.47	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-156	20	U	40	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-157	20	U	40	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-158	20	U	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-159	10	U	200	0.31	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-160	20	U M	200	0.51	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-161	10	U	200	0.38	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-162	20	U	200	0.34	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-163	1.19	J M	600	0.52	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-164	20	U	200	0.39	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-165	10	U	200	0.47	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-166	20	U	400	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-167	10	U	20	0.36	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-168	40	U	400	0.43	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-169	10	U	20	0.36	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-170	20	U	200	0.55	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-171	20	U	400	0.45	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-172	10	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-173	20	U	400	0.45	pg/L		10/25/19 08:29	11/04/19 16:32	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Analyte	MB Result	MB Qualifier	LOQ	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-174	20	U	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-175	20	U	200	0.59	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-176	10	U	200	0.45	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-177	20	U	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-178	10	U	200	0.60	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-179	20	U	200	0.36	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-180	40	U	400	0.39	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-181	10	U	200	0.40	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-182	10	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-183	0.793	J M	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-184	20	U	200	0.41	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-185	20	U M	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-186	10	U	200	0.36	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-187	20	U	200	0.48	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-188	10	U	200	0.57	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-189	10	U	20	0.39	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-190	20	U	200	0.38	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-191	20	U	200	0.38	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-192	20	U	200	0.33	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-193	40	U	400	0.39	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-194	20	U	200	0.40	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-195	20	U	200	0.40	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-196	20	U	200	0.42	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-197	20	U	200	0.27	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-198	20	U	400	0.37	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-199	20	U	400	0.37	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-200	20	U	200	0.30	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-201	20	U	200	0.32	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-202	10	U	200	0.36	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-203	20	U	200	0.34	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-204	20	U	200	0.27	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-205	10	U	200	0.32	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-206	10	U	200	1.6	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-207	10	U	200	0.93	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-208	10	U	200	0.96	pg/L		10/25/19 08:29	11/04/19 16:32	1
PCB-209	4.98	J	200	0.41	pg/L		10/25/19 08:29	11/04/19 16:32	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*63*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-3L	*67*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-4L	*63*	*M*	*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-15L	*66*		*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-19L	*63*		*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-37L	*80*		*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-54L	*84*		*5 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-77L	*79*		*10 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-81L	*73*		*10 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-104L	*74*	*M*	*10 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*
PCB-105L	*85*		*10 - 145*	*10/25/19 08:29*	*11/04/19 16:32*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-333654/1-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333654

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-114L	81		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-118L	82		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-123L	80		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-126L	93		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-155L	67		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-156L	84		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-156L/157L	84		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-157L	84		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-167L	80		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-169L	96		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-188L	75		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-189L	86		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-202L	72		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-205L	94		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-206L	85		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-208L	81		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-209L	90		10 - 145	10/25/19 08:29	11/04/19 16:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	98		5 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-111L	89		10 - 145	10/25/19 08:29	11/04/19 16:32	1
PCB-178L	97		10 - 145	10/25/19 08:29	11/04/19 16:32	1

Lab Sample ID: LCS 320-333654/2-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2000	1800	M	pg/L		90	58 - 115
PCB-3	2000	1900		pg/L		95	64 - 123
PCB-4	2000	2060	M	pg/L		103	62 - 128
PCB-15	2000	1980		pg/L		99	74 - 133
PCB-19	2000	1980		pg/L		99	79 - 118
PCB-37	2000	2050		pg/L		102	60 - 134
PCB-54	2000	1910		pg/L		96	67 - 123
PCB-77	2000	2070		pg/L		104	75 - 113
PCB-81	2000	2110		pg/L		106	77 - 125
PCB-104	2000	2070		pg/L		103	79 - 120
PCB-105	2000	2070	M	pg/L		103	77 - 133
PCB-114	2000	2130		pg/L		107	81 - 133
PCB-118	2000	2190		pg/L		109	82 - 128
PCB-123	2000	2140		pg/L		107	76 - 138
PCB-126	2000	1960		pg/L		98	78 - 119
PCB-155	2000	1980		pg/L		99	69 - 126
PCB-156	4000	4050		pg/L		101	78 - 137
PCB-157	4000	4050		pg/L		101	78 - 137
PCB-167	2000	2030		pg/L		102	78 - 143
PCB-169	2000	2020		pg/L		101	71 - 123

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-333654/2-A
Matrix: Water
Analysis Batch: 335853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-188	2000	2010		pg/L		100	76 - 115
PCB-189	2000	2090	M	pg/L		104	81 - 124
PCB-202	2000	2030		pg/L		101	77 - 114
PCB-205	2000	1990		pg/L		100	69 - 122
PCB-206	2000	2040		pg/L		102	74 - 113
PCB-208	2000	2100		pg/L		105	79 - 118
PCB-209	2000	2060		pg/L		103	80 - 128

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*60*	*M*	*15 - 145*
PCB-3L	*65*	*M*	*15 - 145*
PCB-4L	*61*		*15 - 145*
PCB-15L	*65*		*15 - 145*
PCB-19L	*58*		*15 - 145*
PCB-37L	*83*		*15 - 145*
PCB-54L	*82*		*15 - 145*
PCB-77L	*74*		*40 - 145*
PCB-81L	*70*		*40 - 145*
PCB-104L	*84*	*M*	*40 - 145*
PCB-105L	*87*	*M*	*40 - 145*
PCB-114L	*83*		*40 - 145*
PCB-118L	*85*		*40 - 145*
PCB-123L	*82*		*40 - 145*
PCB-126L	*95*		*40 - 145*
PCB-155L	*74*		*40 - 145*
PCB-156L	*85*		*40 - 145*
PCB-156L/157L	*85*		*40 - 145*
PCB-157L	*85*		*40 - 145*
PCB-167L	*83*		*40 - 145*
PCB-169L	*90*		*40 - 145*
PCB-188L	*81*		*40 - 145*
PCB-189L	*84*		*40 - 145*
PCB-202L	*72*		*40 - 145*
PCB-205L	*90*		*40 - 145*
PCB-206L	*84*		*40 - 145*
PCB-208L	*77*		*40 - 145*
PCB-209L	*84*		*40 - 145*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-28L	*101*		*15 - 145*
PCB-111L	*90*		*40 - 145*
PCB-178L	*95*		*40 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 335853

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 333654

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2.3	J M	1940	1600	M	pg/L		82	58 - 115
PCB-3	2.1	J M	1940	1700		pg/L		87	64 - 123
PCB-4	25	U	1940	1920	M	pg/L		99	62 - 128
PCB-15	20	U	1940	1810	M	pg/L		93	74 - 133
PCB-19	10	U	1940	1830		pg/L		94	79 - 118
PCB-37	12	J M	1940	1870		pg/L		96	60 - 134
PCB-54	10	U	1940	1950		pg/L		100	67 - 123
PCB-77	3.7	J	1940	1840		pg/L		95	75 - 113
PCB-81	10	U	1940	1860		pg/L		96	77 - 125
PCB-104	10	U	1940	2110		pg/L		109	79 - 120
PCB-105	15	J M	1940	1880	M	pg/L		96	77 - 133
PCB-114	10	U	1940	1960		pg/L		101	81 - 133
PCB-118	30		1940	2000		pg/L		101	82 - 128
PCB-123	10	U	1940	1950		pg/L		101	76 - 138
PCB-126	1.4	J M	1940	1810		pg/L		93	78 - 119
PCB-155	10	U	1940	1870		pg/L		96	69 - 126
PCB-156	24	J	3880	3800		pg/L		97	78 - 137
PCB-157	24	J	3880	3800		pg/L		97	78 - 137
PCB-167	11	J	1940	1850		pg/L		95	78 - 143
PCB-169	2.5	J M	1940	1820		pg/L		94	71 - 123
PCB-188	10	U	1940	1740	M	pg/L		90	76 - 115
PCB-189	10	J M	1940	1900	M	pg/L		97	81 - 124
PCB-202	15	J	1940	1840	M	pg/L		94	77 - 114
PCB-205	9.5	J	1940	1830		pg/L		94	69 - 122
PCB-206	42	J	1940	1950		pg/L		98	74 - 113
PCB-208	8.4	J	1940	1900		pg/L		97	79 - 118
PCB-209	6.2	J M	1940	1940		pg/L		100	80 - 128

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
PCB-1L	*65*	*M*	*5 - 145*
PCB-3L	*68*	*M*	*5 - 145*
PCB-4L	*67*		*5 - 145*
PCB-15L	*73*		*5 - 145*
PCB-19L	*66*		*5 - 145*
PCB-37L	*88*		*5 - 145*
PCB-54L	*87*		*5 - 145*
PCB-77L	*88*		*10 - 145*
PCB-81L	*84*	*M*	*10 - 145*
PCB-104L	*79*		*10 - 145*
PCB-105L	*88*	*M*	*10 - 145*
PCB-114L	*85*		*10 - 145*
PCB-118L	*86*		*10 - 145*
PCB-123L	*85*		*10 - 145*
PCB-126L	*92*		*10 - 145*
PCB-155L	*78*		*10 - 145*
PCB-156L	*75*		*10 - 145*
PCB-156L/157L	*75*		*10 - 145*
PCB-157L	*75*		*10 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: 580-90149-2 MS
Matrix: Water
Analysis Batch: 335853

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 333654

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
PCB-167L	*74*		*10 - 145*
PCB-169L	*85*		*10 - 145*
PCB-188L	*79*	*M*	*10 - 145*
PCB-189L	*82*		*10 - 145*
PCB-202L	*60*		*10 - 145*
PCB-205L	*89*		*10 - 145*
PCB-206L	*80*		*10 - 145*
PCB-208L	*76*		*10 - 145*
PCB-209L	*81*		*10 - 145*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
PCB-28L	*101*		*5 - 145*
PCB-111L	*89*		*10 - 145*
PCB-178L	*95*		*10 - 145*

Lab Sample ID: 580-90149-2 MSD
Matrix: Water
Analysis Batch: 335853

Client Sample ID: OF-2
Prep Type: Total/NA
Prep Batch: 333654

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	2.3	J M	2050	1680	M	pg/L		82	58 - 115	5	50
PCB-3	2.1	J M	2050	1780		pg/L		87	64 - 123	5	50
PCB-4	25	U	2050	2090	M	pg/L		102	62 - 128	9	50
PCB-15	20	U	2050	1910	M	pg/L		93	74 - 133	5	50
PCB-19	10	U	2050	1970		pg/L		96	79 - 118	8	50
PCB-37	12	J M	2050	1940		pg/L		94	60 - 134	3	50
PCB-54	10	U	2050	2010	M	pg/L		98	67 - 123	3	50
PCB-77	3.7	J	2050	1960		pg/L		96	75 - 113	7	50
PCB-81	10	U	2050	1990		pg/L		97	77 - 125	7	50
PCB-104	10	U	2050	2170		pg/L		106	79 - 120	3	50
PCB-105	15	J M	2050	1990	M	pg/L		97	77 - 133	6	50
PCB-114	10	U	2050	2050	M	pg/L		100	81 - 133	4	50
PCB-118	30		2050	2120		pg/L		102	82 - 128	6	50
PCB-123	10	U	2050	2080		pg/L		102	76 - 138	6	50
PCB-126	1.4	J M	2050	1910		pg/L		93	78 - 119	5	50
PCB-155	10	U	2050	1970		pg/L		96	69 - 126	5	50
PCB-156	24	J	4100	3990		pg/L		97	78 - 137	5	50
PCB-157	24	J	4100	3990		pg/L		97	78 - 137	5	50
PCB-167	11	J	2050	1980		pg/L		96	78 - 143	7	50
PCB-169	2.5	J M	2050	1940		pg/L		95	71 - 123	7	50
PCB-188	10	U	2050	1880		pg/L		92	76 - 115	8	50
PCB-189	10	J M	2050	2000	M	pg/L		97	81 - 124	5	50
PCB-202	15	J	2050	2000		pg/L		97	77 - 114	9	50
PCB-205	9.5	J	2050	1920		pg/L		93	69 - 122	5	50
PCB-206	42	J	2050	2040		pg/L		98	74 - 113	5	50
PCB-208	8.4	J	2050	2030		pg/L		98	79 - 118	6	50
PCB-209	6.2	J M	2050	1990		pg/L		97	80 - 128	3	50

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
PCB-1L	64	M	5 - 145
PCB-3L	69	M	5 - 145
PCB-4L	65		5 - 145
PCB-15L	73		5 - 145
PCB-19L	63		5 - 145
PCB-37L	92		5 - 145
PCB-54L	90		5 - 145
PCB-77L	79		10 - 145
PCB-81L	74		10 - 145
PCB-104L	84	M	10 - 145
PCB-105L	86		10 - 145
PCB-114L	83	M	10 - 145
PCB-118L	83	M	10 - 145
PCB-123L	82		10 - 145
PCB-126L	92		10 - 145
PCB-155L	79		10 - 145
PCB-156L	84		10 - 145
PCB-156L/157L	84		10 - 145
PCB-157L	84		10 - 145
PCB-167L	81		10 - 145
PCB-169L	93		10 - 145
PCB-188L	77		10 - 145
PCB-189L	86		10 - 145
PCB-202L	64		10 - 145
PCB-205L	91		10 - 145
PCB-206L	83		10 - 145
PCB-208L	79		10 - 145
PCB-209L	85		10 - 145

Surrogate	MSD %Recovery	MSD Qualifier	Limits
PCB-28L	96		5 - 145
PCB-111L	88		10 - 145
PCB-178L	93		10 - 145

QC Association Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

GC/MS Semi VOA

Filtration Batch: 314899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Dissolved	Water	FILTRATION	
580-90149-2	OF-2	Dissolved	Water	FILTRATION	
MB 580-314899/1-B	Method Blank	Dissolved	Water	FILTRATION	
580-90149-2 MS	OF-2	Dissolved	Water	FILTRATION	
580-90149-2 MSD	OF-2	Dissolved	Water	FILTRATION	

Prep Batch: 314900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Dissolved	Water	Organotin	314899
580-90149-2	OF-2	Dissolved	Water	Organotin	314899
MB 580-314899/1-B	Method Blank	Dissolved	Water	Organotin	314899
580-90149-2 MS	OF-2	Dissolved	Water	Organotin	314899
580-90149-2 MSD	OF-2	Dissolved	Water	Organotin	314899

Prep Batch: 314954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	3520C	
580-90149-2	OF-2	Total/NA	Water	3520C	
MB 580-314954/1-A	Method Blank	Total/NA	Water	3520C	
LCS 580-314954/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 580-314954/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
580-90149-2 MS	OF-2	Total/NA	Water	3520C	
580-90149-2 MSD	OF-2	Total/NA	Water	3520C	

Analysis Batch: 315201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	8270D SIM	314954
580-90149-2	OF-2	Total/NA	Water	8270D SIM	314954
MB 580-314954/1-A	Method Blank	Total/NA	Water	8270D SIM	314954
LCS 580-314954/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	314954
LCSD 580-314954/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	314954
580-90149-2 MS	OF-2	Total/NA	Water	8270D SIM	314954
580-90149-2 MSD	OF-2	Total/NA	Water	8270D SIM	314954

Prep Batch: 315614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	Organotin	
580-90149-2	OF-2	Total/NA	Water	Organotin	
MB 580-315614/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 580-315614/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 580-315614/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	
580-90149-2 MS	OF-2	Total/NA	Water	Organotin	
580-90149-2 MSD	OF-2	Total/NA	Water	Organotin	

Analysis Batch: 315800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Dissolved	Water	Organotins	314900
580-90149-2	OF-2	Dissolved	Water	Organotins	314900
MB 580-314899/1-B	Method Blank	Dissolved	Water	Organotins	314900
580-90149-2 MS	OF-2	Dissolved	Water	Organotins	314900
580-90149-2 MSD	OF-2	Dissolved	Water	Organotins	314900

QC Association Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

GC/MS Semi VOA

Analysis Batch: 316009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	Organotins	315614
580-90149-2	OF-2	Total/NA	Water	Organotins	315614
MB 580-315614/1-A	Method Blank	Total/NA	Water	Organotins	315614
LCSD 580-315614/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins	315614
580-90149-2 MS	OF-2	Total/NA	Water	Organotins	315614
580-90149-2 MSD	OF-2	Total/NA	Water	Organotins	315614

Analysis Batch: 316199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-2	OF-2	Total/NA	Water	Organotins	315614
580-90149-2 MS	OF-2	Total/NA	Water	Organotins	315614
580-90149-2 MSD	OF-2	Total/NA	Water	Organotins	315614

Analysis Batch: 316515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 580-315614/2-A	Lab Control Sample	Total/NA	Water	Organotins	315614

GC VOA

Analysis Batch: 314837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	NWTPH-Gx	
580-90149-2	OF-2	Total/NA	Water	NWTPH-Gx	
MB 580-314837/7	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 580-314837/8	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 580-314837/9	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
580-90149-2 MS	OF-2	Total/NA	Water	NWTPH-Gx	
580-90149-2 MSD	OF-2	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 315552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	3510C	
580-90149-2	OF-2	Total/NA	Water	3510C	
LCS 580-315552/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 580-315552/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
580-90149-2 MS	OF-2	Total/NA	Water	3510C	
580-90149-2 MSD	OF-2	Total/NA	Water	3510C	

Analysis Batch: 315684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	NWTPH-Dx	315552
580-90149-2	OF-2	Total/NA	Water	NWTPH-Dx	315552
LCS 580-315552/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	315552
LCSD 580-315552/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	315552
580-90149-2 MS	OF-2	Total/NA	Water	NWTPH-Dx	315552
580-90149-2 MSD	OF-2	Total/NA	Water	NWTPH-Dx	315552

Prep Batch: 316340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 316340 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-2	OF-2	Total/NA	Water	3510C	
MB 580-316340/1-A	Method Blank	Total/NA	Water	3510C	
LCS 580-316340/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 580-316340/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
580-90149-2 MS	OF-2	Total/NA	Water	3510C	
580-90149-2 MSD	OF-2	Total/NA	Water	3510C	

Analysis Batch: 316420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	NWTPH-Dx	316340
580-90149-2	OF-2	Total/NA	Water	NWTPH-Dx	316340
MB 580-316340/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	316340
LCS 580-316340/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	316340
LCSD 580-316340/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	316340
580-90149-2 MS	OF-2	Total/NA	Water	NWTPH-Dx	316340
580-90149-2 MSD	OF-2	Total/NA	Water	NWTPH-Dx	316340

Specialty Organics

Prep Batch: 333654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	HRMS-Sep	
580-90149-2	OF-2	Total/NA	Water	HRMS-Sep	
MB 320-333654/1-A	Method Blank	Total/NA	Water	HRMS-Sep	
LCS 320-333654/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
580-90149-2 MS	OF-2	Total/NA	Water	HRMS-Sep	
580-90149-2 MSD	OF-2	Total/NA	Water	HRMS-Sep	

Analysis Batch: 335853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-90149-1	OF-1	Total/NA	Water	1668C	333654
580-90149-2	OF-2	Total/NA	Water	1668C	333654
MB 320-333654/1-A	Method Blank	Total/NA	Water	1668C	333654
LCS 320-333654/2-A	Lab Control Sample	Total/NA	Water	1668C	333654
580-90149-2 MS	OF-2	Total/NA	Water	1668C	333654
580-90149-2 MSD	OF-2	Total/NA	Water	1668C	333654

Lab Chronicle

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Client Sample ID: OF-1

Lab Sample ID: 580-90149-1

Date Collected: 10/16/19 13:13
Date Received: 10/18/19 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			314954	10/23/19 11:34	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	315201	10/25/19 22:05	W1T	TAL SEA
Dissolved	Filtration	FILTRATION			314899	10/22/19 16:36	ERZ	TAL SEA
Dissolved	Prep	Organotin			314900	10/22/19 16:38	ERZ	TAL SEA
Dissolved	Analysis	Organotins		1	315800	11/01/19 23:09	TL1	TAL SEA
Total/NA	Prep	Organotin			315614	10/31/19 17:34	PRO	TAL SEA
Total/NA	Analysis	Organotins		1	316009	11/05/19 15:02	ADB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	314837	10/22/19 13:27	DCV	TAL SEA
Total/NA	Prep	3510C			316340	11/08/19 08:56	NRF	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	316420	11/10/19 01:09	TL1	TAL SEA
Total/NA	Prep	3510C			315552	10/30/19 13:05		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	315684	10/31/19 19:42	JCM	TAL SEA
Total/NA	Prep	HRMS-Sep			333654	10/25/19 08:29	RDR	TAL SAC
Total/NA	Analysis	1668C		1	335853	11/04/19 19:02	KSS	TAL SAC

Client Sample ID: OF-2

Lab Sample ID: 580-90149-2

Date Collected: 10/16/19 12:58
Date Received: 10/18/19 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			314954	10/23/19 11:34	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	315201	10/25/19 22:31	W1T	TAL SEA
Dissolved	Filtration	FILTRATION			314899	10/22/19 16:36	ERZ	TAL SEA
Dissolved	Prep	Organotin			314900	10/22/19 16:38	ERZ	TAL SEA
Dissolved	Analysis	Organotins		1	315800	11/01/19 23:34	TL1	TAL SEA
Total/NA	Prep	Organotin			315614	10/31/19 17:34	PRO	TAL SEA
Total/NA	Analysis	Organotins		1	316199	11/06/19 20:45	TL1	TAL SEA
Total/NA	Prep	Organotin			315614	10/31/19 17:34	PRO	TAL SEA
Total/NA	Analysis	Organotins		1	316009	11/05/19 15:27	ADB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	314837	10/22/19 13:51	DCV	TAL SEA
Total/NA	Prep	3510C			316340	11/08/19 08:56	NRF	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	316420	11/10/19 01:30	TL1	TAL SEA
Total/NA	Prep	3510C			315552	10/30/19 13:05		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	315684	10/31/19 20:22	JCM	TAL SEA
Total/NA	Prep	HRMS-Sep			333654	10/25/19 08:29	RDR	TAL SAC
Total/NA	Analysis	1668C		1	335853	11/04/19 20:17	KSS	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	01-19-22
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
Montana (UST)	State	NA	04-13-21
Oregon	NELAP	WA100007	11-06-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00039	02-10-20
Washington	State	C553	02-17-20

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-29-20
Hawaii	State	<cert No.>	01-29-20
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20
Michigan	State Program	9947	01-31-20
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-20
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19
Wyoming	State Program	8TMS-L	01-28-19 *

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

Method Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SEA
Organotins	Organotins, PSEP (GC/MS)	None	TAL SEA
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL SEA
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SEA
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SEA
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL SEA
5030B	Purge and Trap	SW846	TAL SEA
FILTRATION	Sample Filtration	None	TAL SEA
HRMS-Sep	Separatory Funnel (Liquid-Liquid) Extraction	EPA	TAL SAC
Organotin	Extraction (Organotins)	WRC	TAL SEA

Protocol References:

EPA = US Environmental Protection Agency
None = None
NWTPH = Northwest Total Petroleum Hydrocarbon
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600
TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Katahdin Analytical Services
Project/Site: DOD, Stormwater

Job ID: 580-90149-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-90149-1	OF-1	Water	10/16/19 13:13	10/18/19 09:15	
580-90149-2	OF-2	Water	10/16/19 12:58	10/18/19 09:15	