ANALYTICAL SUMMARY REPORT

March 18, 2022

AECOM - Honolulu
1001 Bishop Street, Suite 1600
Honolulu HI, 96813-3698

Work Order: B21121961 Quote ID: 5912

Project Name: CV18F0126/60571032.02.46.01

Energy Laboratories Inc Billings MT received the following 5 samples from AECOM - Honolulu on 12/27/2021 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B21121961-001	ERH2234 (RHMW01R)	12/20/21 15:20	12/27/2021	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Dissolved SW6020 Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds SW8270C Low Level PAH SW8270C SW8011 Microextraction
B21121961-002	ERH2233 Trip Blank-14575	12/20/21 15:20	12/27/2021	Trip Blank	Gasoline Range Organics SW8015C
B21121961-003	ERH2233 Trip Blank-14575	12/20/21 15:20	12/27/2021	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B21121961-004	ERH2233 Trip Blank-14451	12/20/21 15:20	12/27/2021	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B21121961-005	ERH2233 Trip Blank-14457	12/20/21 15:20	12/27/2021	Trip Blank	Headspace Gas Analysis SW8015M

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By: Cindy Rohrer Laboratory Manager

Digitally signed by
Cindy Rohrer
Date: 2022.03.21 13:42:01 -06:00

CLIENT: AECOM - Honolulu
Project: CV18F0126/60571032.02.46.01
Work Order: B21121961

Revised Date: 3/18/2022
Report Date: 2/9/2022

CASE NARRATIVE

Revised report 3/18/2022:

The differences between the results for DRO for samples ERH2269 (Sump Adit3 Loc-1) (B21121967-001) and ERH2234 (RHMW01R) (B21121961-001) were investigated per a request from Cathy Larson from AECOM.

Pictures of the containers were taken at sample receipt. Only the first bottle can be viewed in the pictures. It appears that the bottles were correctly labelled by the laboratory. The supervisor of the department was interviewed and the extraction, analysis, and clean up methods were reviewed. Samples are set up in numerical order for extraction. Bottle and vial IDs are verified at extraction and analysis. No evidence for sample mix-up at extraction or the analytical process could be definitively determined. The analytical run was examined, and no anomalies were found.

Because the difference between the two extractions and analyses could not be definitively explained, both results have been reported.

The report has been revised and replaces in its entirety to report dated 2/8/2022.

General Comments:

For any question please contact your Project Manager at (406) 252-6325 or billingspm@energylab.com.

All analyses have been performed in accordance with DOD QSM Version 5.3 unless otherwise noted below. The specific methodologies used in obtaining the enclosed analytical results are indicated on the Analytical Summary Report and the Laboratory Analytical Report. The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted in the Work Order Receipt Checklist.

The tests listed below are accredited and meet the requirements of DoD QSM Version 5.3 as verified by ANSI-ASQ National Accreditation Board (ANAB) certificate number ADE-2588. Exceptions to this require client authorization and records documenting this approval are attached in the Sample Management Records. Accreditation may not be offered or required for all methods and analytes reported in this package. Refer to the certificate and scope of accreditation located at https://www.energylab.com/whyus/certifications-quality-control/ or contact your project manager.

Tests for Total Organic Carbon by SW9060A associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.

Project specific matrix quality control samples may not be reported if site specific samples were not submitted. Matrix quality control samples were performed on project samples where adequate volume was available. All quality control measures met criteria unless otherwise noted in the Analytical QC Exceptions report and in the Analysis Specific Comments below. Where available, sample management records are attached.

The Stage 4 Validation Package includes data reports for all analyses associated with the instrument calibration, quality control (QC) sample analysis, and sample analysis. All analytical data is within method specifications except as noted in the Analytical QC Exceptions report or the Analysis Specific Comments below. The analytical report identifies preparation batch and analytical run IDs associated with each result for a sample. Only the raw data associated with the parameters listed on this report should be validated.

Analysis Specific Comments:

An Analytical QC Exceptions Report has been attached, summarizing all qualified QC results. Corrective actions regarding Semi-Volatile Petroleum Hydrocarbons by SW8015C, Volatile Organic Compounds by EPA 8260B and Semi-Volatile Organic Compounds by EPA 8270C analysis are summarized below.

Method SW8260B:

B21121841-001CMS, B21121841-001CMSD, CCV122721_Closing

The analyte recoveries and RPD values for 1,1,2,2-Tetrachloroethane and 1,1-Dichloroethene were slightly above quality control limits. Bromomethane is a known very reactive compound and often recovers poorly. These analytes were not

detected in the associated samples.

B21121961-001, B21121961-003

The sample was re-analyzed due to a low recovery for Bromomethane in the bracketing CCV. Re-analysis produced similar results. Both the original and re-analysis results are included in the analytical report.

Method SW8270C:

LCS-162475, LCSD-162475, B21121877-001EMS, B21121877-001EMSD, 04-Jan-22_CCV_9

The analyte recoveries for 4-Nitrophenol, n-Nitrosodimethylamine, 4-Chlorophenol, 2,6-Dinitrotoluene, Dimethyl phthalate, and Nitrobenzene were slightly above quality control limits. RPD values were above the quality control limit for Benzo(b)fluoranthene, Benzo(k)fluoranthene, bis(2-ethylhexyl)Phthalate, Hexachlorocyclopentadiene, and Di-n-octyl phthalate. The recovery of Hexachlorocyclopentadiene was slightly below quality control limits. Benzidine is a known very reactive compound and often recovers poorly. These analytes were not detected in the associated samples.

B21121877-001EMS, B21121877-001EMSD

Because the sample amount was significantly higher than the spike amount for some analytes, the MS and MSD spike samples for those analytes are calculated as Duplicate samples based on the spike amount added plus the original sample concentration.

Method SW8015C:

B21121961-001

Per client request, the sample was re-extracted and re-analyzed. The prep re-extraction hold time was exceeded by 30.9 days. Both the original and re-analysis results are included in the analytical report.

Chain of Custody & Analytical Request Record – DoD Project

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www.energylab.com

COC: 202112-40-NOI

Page 1 of 1

Account Information (Billing information)

Company/Name	AECOM
Contact	Alethea Ramos / Margie Pascua
Phone	808-529-7283 / 808-356-5373
Mailing Address	1001 Bishop St., Suite 1600
City, State, Zip	Honolulu, HI 96813
Email	alethea.ramos@aecom.com / margie.pascua@aecom.com
Receive Invoice	☐Hard Copy ☑Email
Receive Report	☐Hard Copy ☑Email
Purchase Order	N/A
Quote	N/A
Bottle Order	N/A

Report Information (If different than Account Information)

Company/Name	AECOM
Contact	see Account information
Phone	
Mailing Address	
City, State, Zip	
Email	USAPimaging@aecom.com
Receive Report	☐Hard Copy ☐Email
Special Report/Formats:	☑LEVEL IV ☐NELAC ☑EDD/EDT (contact laboratory) ☐Other

Comments

1. Project performed under DoD QSM
2. TPH-d/o needs 3520 extraction
3. Preliminary data (or level 1) in 1-2 business days; Level IV report in 10 working days.
4. Note: NOI log is separate from other COC's.
5. *SVOC/VOC (full suite), PAH SIM (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01
Sampler Name	AE, SW, RS, BL
Sampler Phone	808-393-6607
Sample Origin State	Hawaii
EPA/State Compliance	☐ Yes ☐ No

The following tests will be subcontracted to other certified laboratories as shown: Signing this COC is authorization to subcontract the analyses as indicated!

Analysis	Subcontract Lab
TOC	Energy Laboratories Inc., Casper

Matrix Codes

A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Other
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

	Sample Identification (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers	Matrix (See Codes Above)	8260 VOC's (Full Suite) + DCA* [(6) 40ml VOA w/HCL]	8015 TPH-g [(3) 40ml VOA w/HCL]	RSK175 Methane [(2) 40ml VOA w/H2SO4]	8011 EDB [(3) 40ml VOA w/ HCL]	8270D SVOC (Full Suite)* PAH 8270D SIM [(2) 1-L AG]	EPA 3630/8015 TPH-d/o +SGC [(2) 1-L AG w/H2SO4]	EPA 9060 TOC [(2) 250ml AG w/H3PO4]	EPA 6020 Total Lead [(1) 500ml HDPE w/HNO3]	EPA 6020 Diss Lead (Field Filtered) [(1) 500ml HDPE w/HNO3]	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1	ERH2234 (RHMW01R)	12/20/21	1120	22	W	X	X	X	X	X	X	X	X	X		✓	B212196l-001
2	ERH2233 (Trip Blank)	12/20/21	1115	8	W	X	X	X	X							✓	-002, 003, 004, 005
3																	
4	TB 8015 14575																-002
5	TB 8260 14575																-003
6	TB 8011 14451																-004
7	TB Methane 14457																-005
8																	
9																	
10																	

JM 12/21/21

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Tianzhen Nie	12/21/21 15:00				
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Sara Gotter	12/22/21 08:45	Sara Gotter

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp	Temp Blank? Y N	On Ice Y N	Payment Type CC Cash Check	Amount $	Receipt Number (cash/check only)
				2.8 °C	Y				

ELI-COC-10/18 v.3

Work Order Receipt Checklist

AECOM - Honolulu

B21121961

Login completed by: Leslie S. Cadreau
Date Received: 12/27/2021

Reviewed by: BL2000\gmccartney
Received by: srg

Reviewed Date: 12/29/2021
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☑	No ☐	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	2.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	Not Applicable ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

The collection time indicated on the Chain of Custody for all samples is in Hawaii-Aleutian Standard Time. The collection time has been converted (+4 Hours) to Mountain Standard Time.

The matrix was not specified on the Chain of Custody. The matrix should be Ground Water per email from Alethea Ramos on 12/28/21.

Qualifiers and Abbreviations

Qualifier	Qualifier Description
##	Limit of Quantitation (LOQ) for this analyte exceeds the Maximum Contaminant Level (MCL)
*	Result exceeds the Maximum Contaminant Level (MCL)
A	The analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated
B	Analyte detected in the method blank
C	Continuing calibration verification was outside of the quality control advisory limits
D	Limit of Quantitation (LOQ) increased due to sample matrix
E	Estimated value - result exceeds the instrument upper quantitation limit
H	Analysis performed past the method holding time
J	The reported result is an estimated value
L	Lowest Limit of Quantitation (LOQ) available for the analytical method used
N	Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test
O	Diluted out
P	Poor method performance - method validations have shown no recoveries at low concentrations or method performance was erratic
Q	Values reported below the Limit of Quantitation (LOQ) are statistically invalid
R	Relative Percent Difference (RPD) exceeds advisory limit
S	Spike recovery outside of advisory limits
T	Analyte detected in the associated trip blank
U	Not detected at the Limit of Detection (LOD)
V	The RPD value for this duplicate represents the RER value and the RPDLimit of 2 is the RER upper limit.

Qualifiers and Abbreviations

Abbreviation

Reporting	Explanation of Abbreviation
DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MDC	Minimum Detectable Concentration
ND	Not detected at the Limit of Quantitaton (LOQ)
RBSL	Risk-Based Screening Levels
REC	Recovery
RER	Relative Error Ratio
RPD	Relative Percent Difference
SPK	Spike

Sample Types	Explanation of Abbreviation
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification Standard
DUP	Sample Duplicate
ICSA	Interference Check Sample A
ICSAB	Interference Check Sample AB
ICV	Initial Calibration Verification Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LFB	Laboratory Fortified Blank
LRB	Laboratory Reagent Blank
MBLK	Method Blank
MS	Sample Matrix Spike
MSD	Sample Matrix Spike Duplicate
PDS	Post Digestion/Distillation Spike
QCS	Quality Control Sample
SD	Serial Dilution
SRM	Standard Reference Material

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2234 (RHMW01R)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21121961-001
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.7 to 0.8	0.77	mg/L	1		0.50	0.50	0.17		SW9060A	12/29/2021 22:11/eli-ca	SUB-C278345 : 15	C_R278345
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/19/2022 03:20/car	ICPMS206-B_220118A : 92	R373351
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/19/2022 03:37/car	ICPMS206-B_220118A : 95	162497
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2234 (RHMW01R)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21121961-001
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2234 (RHMW01R)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21121961-001
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Surr: Dibromofluoromethane	92.0	%REC	1		80-119				SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Surr: 1,2-Dichloroethane-d4	89.0	%REC	1		81-118				SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Surr: 1,2-Dichloroethane-d4	102.0	%REC	1		81-118				SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824
Surr: p-Bromofluorobenzene	103.0	%REC	1		85-114				SW8260B	12/27/2021 17:23/msc	VOA5975C.I_211227A : 17	R372727
Surr: p-Bromofluorobenzene	103.0	%REC	1		85-114				SW8260B	12/28/2021 17:47/msc	VOA5975C.I_211228A : 16	R372824

- The sample was re-analyzed due to a low recovery for Bromomethane in the bracketing CCV. Re-analysis produced similar results. Both the original and re-analysis results are included in the analytical report.

VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	12/28/2021 18:29/clt	GECD.I_211228A : 16	162519

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121961-001
Client: AECOM - Honolulu
Collection Date: 12/20/2021 15:20
Client Sample ID: ERH2234 (RHMW01R)
Date Received: 12/27/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/09/2022
Matrix: Ground Water
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
Surr: 1,1,1,2-Tetrachloroethane	83.0	%REC	1		70-130				SW8011	12/28/2021 18:29/clt	GECD.I_211228A : 16	162519
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/29/2021 00:49/jp	PE 1_211228A : 22	R372468
Total Purgeable Hydrocarbons	44	ug/L	1		20	10	3.6		SW8015C	12/29/2021 00:49/jp	PE 1_211228A : 22	R372468
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	12/29/2021 00:49/jp	PE 1_211228A : 22	R372468
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.												
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	0.25	mg/L	1	J	0.30	0.15	0.038		SW8015C	01/29/2022 06:50/amn	GCFID-HP5-B_220128A : 18	163307
Diesel Range Organics (C10 to C24)	5.6	mg/L	1		0.30	0.15	0.039		SW8015C	12/30/2021 11:21/amn	GCFID-HP5-B_211228B : 27	162502
Diesel Range Organics (SGT-C10 to C24)	4.2	mg/L	1		0.30	0.15	0.035		SW8015C	01/3/2022 08:12/amn	GCFID-HP4-B_220102A : 10	162502
Diesel Range Organics (SGT-C10 to C24)	0.047	mg/L	1	J	0.30	0.12	0.038		SW8015C	02/1/2022 03:16/amn	GCFID-HP5-B_220131A : 15	163307
Oil Range Hydrocarbons (C24 to C40)	0.15	mg/L	1	J	0.30	0.15	0.086		SW8015C	01/29/2022 06:50/amn	GCFID-HP5-B_220128A : 18	163307
Oil Range Hydrocarbons (C24 to C40)	0.39	mg/L	1		0.30	0.15	0.087		SW8015C	12/30/2021 11:21/amn	GCFID-HP5-B_211228B : 27	162502
Oil Range Hydrocarbons (SGT-C24 to C40)	0.15	mg/L	1	J	0.30	0.15	0.051		SW8015C	01/3/2022 08:12/amn	GCFID-HP4-B_220102A : 10	162502
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.086		SW8015C	02/1/2022 03:16/amn	GCFID-HP5-B_220131A : 15	163307
Total Extractable Hydrocarbons	0.45	mg/L	1		0.30	0.15	0.073		SW8015C	01/29/2022 06:50/amn	GCFID-HP5-B_220128A : 18	163307
Total Extractable Hydrocarbons	6.1	mg/L	1		0.30	0.15	0.074		SW8015C	12/30/2021 11:21/amn	GCFID-HP5-B_211228B : 27	162502
Total Extractable Hydrocarbons (SGT)	4.4	mg/L	1		0.30	0.15	0.077		SW8015C	01/3/2022 08:12/amn	GCFID-HP4-B_220102A : 10	162502
Total Extractable Hydrocarbons (SGT)	0.060	mg/L	1	J	0.30	0.12	0.032		SW8015C	02/1/2022 03:16/amn	GCFID-HP5-B_220131A : 15	163307
Surr: o-Terphenyl	89.0	%REC	1		56-125				SW8015C	01/29/2022 06:50/amn	GCFID-HP5-B_220128A : 18	163307
Surr: o-Terphenyl	102.0	%REC	1		56-125				SW8015C	12/30/2021 11:21/amn	GCFID-HP5-B_211228B : 27	162502
Surr: o-Terphenyl (SGT)	95.0	%REC	1		56-125				SW8015C	01/3/2022 08:12/amn	GCFID-HP4-B_220102A : 10	162502
Surr: o-Terphenyl (SGT)	84.0	%REC	1		56-125				SW8015C	02/1/2022 03:16/amn	GCFID-HP5-B_220131A : 15	163307
Surr: n-Triacontane	96.0	%REC	1		50-150				SW8015C	01/29/2022 06:50/amn	GCFID-HP5-B_220128A : 18	163307
Surr: n-Triacontane	118.0	%REC	1		50-150				SW8015C	12/30/2021 11:21/amn	GCFID-HP5-B_211228B : 27	162502
Surr: n-Triacontane (SGT)	118.0	%REC	1		50-150				SW8015C	01/3/2022 08:12/amn	GCFID-HP4-B_220102A : 10	162502
Surr: n-Triacontane (SGT)	90.0	%REC	1		50-150				SW8015C	02/1/2022 03:16/amn	GCFID-HP5-B_220131A : 15	163307
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
- Per client request, the sample was re-extracted and re-analyzed. The prep re-extraction hold time was exceeded by 30.9 days. Both the original and re-analysis results are included in the analytical report.												
ORGANIC CHARACTERISTICS												
Methane	0.49	mg/L	78		0.16	0.090	0.055		SW8015M	12/28/2021 12:09/jdw	FID-HEADSPACE_211228A : 10	R372437
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2234 (RHMW01R)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21121961-001
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.1		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
1-Methylnaphthalene	ND	ug/L	1	U	10	5.2	2.5		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2-Chloronaphthalene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2-Chlorophenol	ND	ug/L	1	U	10	5.2	2.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2-Methylnaphthalene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
2-Nitrophenol	ND	ug/L	1	U	10	5.2	2.5		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	5.2	2.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.2	1.8		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4-Chlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.2	2.1		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Acenaphthene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Acenaphthylene	ND	ug/L	1	U	10	5.2	1.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Anthracene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Azobenzene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzidine	ND	ug/L	1	U	10	10	7.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzo(a)anthracene	ND	ug/L	1	U	10	5.2	0.89		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzo(a)pyrene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzo(b)fluoranthene	ND	ug/L	1	U	10	5.2	0.94		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Benzo(k)fluoranthene	ND	ug/L	1	U	10	5.2	1.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.2	1.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.2	2.7		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.2	1.5		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.2	2.0		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Butylbenzylphthalate	ND	ug/L	1	U	10	5.2	1.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Chrysene	ND	ug/L	1	U	10	5.2	1.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.2	0.97		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.2	1.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	5.2	1.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121961-001
Client: AECOM - Honolulu
Collection Date: 12/20/2021 15:20
Client Sample ID: ERH2234 (RHMW01R)
Date Received: 12/27/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/09/2022
Matrix: Ground Water
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Diethyl phthalate	ND	ug/L	1	U	10	5.2	2.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Dimethyl phthalate	ND	ug/L	1	U	10	5.2	1.8		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Fluoranthene	ND	ug/L	1	U	10	5.2	0.92		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Fluorene	ND	ug/L	1	U	10	5.2	1.9		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Hexachlorobenzene	ND	ug/L	1	U	10	5.2	1.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Hexachlorobutadiene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Hexachloroethane	ND	ug/L	1	U	10	5.2	1.9		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Isophorone	ND	ug/L	1	U	10	5.2	1.7		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
m+p-Cresols	ND	ug/L	1	U	10	5.2	1.9		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.2	1.2		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Naphthalene	ND	ug/L	1	U	10	5.2	1.8		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Nitrobenzene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
o-Cresol	ND	ug/L	1	U	10	5.2	1.9		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Pentachlorophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Phenanthrene	ND	ug/L	1	U	10	5.2	0.82		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Phenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Pyrene	ND	ug/L	1	U	10	5.2	0.96		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Pyridine	ND	ug/L	1	U	10	5.2	3.3		SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: 2,4,6-Tribromophenol	87.0	%REC	1		43-140				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: 2-Fluorobiphenyl	78.0	%REC	1		44-119				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: 2-Fluorophenol	31.0	%REC	1		19-119				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: Nitrobenzene-d5	79.0	%REC	1		44-120				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: Phenol-d5	38.0	%REC	1		10-65				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
Surr: Terphenyl-d14	94.0	%REC	1		50-134				SW8270C	01/4/2022 22:38/dsm	SV5973N.I_220104A : 17	162475
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.021		SW8270C	01/4/2022 19:40/jph	SV5975.I_220104A : 13	162475
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.018		SW8270C	01/4/2022 19:40/jph	SV5975.I_220104A : 13	162475
Naphthalene	ND	ug/L	1	U	0.10	0.10	0.030		SW8270C	01/4/2022 19:40/jph	SV5975.I_220104A : 13	162475

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121961-002
Client: AECOM - Honolulu
Collection Date: 12/20/2021 15:20
Client Sample ID: ERH2233 Trip Blank-14575
Date Received: 12/27/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/09/2022
Matrix: Trip Blank
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/28/2021 19:40/jp	PE 1_211228A : 15	R372468
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/28/2021 19:40/jp	PE 1_211228A : 15	R372468
Surr: Trifluorotoluene	83.0	%REC	1		70-130				SW8015C	12/28/2021 19:40/jp	PE 1_211228A : 15	R372468

- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2233 Trip Blank-14575
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21121961-003
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2233 Trip Blank-14575
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21121961-003
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121961-003
Client: AECOM - Honolulu
Collection Date: 12/20/2021 15:20
Client Sample ID: ERH2233 Trip Blank-14575
Date Received: 12/27/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/09/2022
Matrix: Trip Blank
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Surr: Dibromofluoromethane	105.0	%REC	1		80-119				SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Surr: 1,2-Dichloroethane-d4	104.0	%REC	1		81-118				SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Surr: 1,2-Dichloroethane-d4	99.0	%REC	1		81-118				SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824
Surr: p-Bromofluorobenzene	102.0	%REC	1		85-114				SW8260B	12/27/2021 13:46/msc	VOA5975C.I_211227A : 9	R372727
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	12/28/2021 14:36/msc	VOA5975C.I_211228A : 9	R372824

- The sample was re-analyzed due to a low recovery for Bromomethane in the bracketing CCV. Re-analysis produced similar results. Both the original and re-analysis results are included in the analytical report.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2233 Trip Blank-14451
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21121961-004
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0051	0.0026		SW8011	12/28/2021 18:49/clt	GECD.I_211228A : 17	162519
Surr: 1,1,1,2-Tetrachloroethane	84.0	%REC	1		70-130				SW8011	12/28/2021 18:49/clt	GECD.I_211228A : 17	162519

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2233 Trip Blank-14457
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21121961-005
Collection Date: 12/20/2021 15:20
Date Received: 12/27/2021
Report Date: 02/09/2022
Revised Date: 03/18/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	12/28/2021 12:19/jdw	FID-HEADSPACE_211228A : 11	R372437

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SUB-C278345: 2 **SampType:** Method Blank **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/29/2021 16:01 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	ND	0.20									

Associated Samples: **B21121961-001E**
- TOC Range is 0.1 to 0.3

Run ID: Run Order: SUB-C278345: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/29/2021 15:21 **Prep Date:**
Lab ID: LCS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0		102.0	91	111				

Associated Samples: **B21121961-001E**
- TOC Range is 5.1 to 5.2

Run ID: Run Order: SUB-C278345: 10 **SampType:** Sample Matrix Spike **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/30/2021 05:49 **Prep Date:**
Lab ID: B21121981-001E **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.5	0.50	5.0	0.38	102.0	91	111				

Associated Samples: **B21121961-001E**
- TOC Range is 5.4 to 5.5

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SUB-C278345: 11 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/30/2021 06:34 **Prep Date:**
Lab ID: B21121981-001E **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.5	0.50	5.0	0.38	102.0	91	111	5.5	0.2	10.0	

Associated Samples: **B21121961-001E**
- TOC Range is 5.4 to 5.5

Run ID: Run Order: SUB-C278345: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/29/2021 16:40 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0		102.0	90	110				

Associated Samples: **B21121961-001E**
- TOC Range is 5.0 to 5.1

Run ID: Run Order: SUB-C278345: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R278345
Method: SW9060A **Analysis Date:** 12/30/2021 01:37 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.0	0.50	5.0		101.0	90	110				

Associated Samples: **B21121961-001E**
- TOC Range is 5.0 to 5.1

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: ICPMS206-B_220118A: 47 **SampType:** Method Blank **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/18/2022 23:03 **Prep Date:**
Lab ID: LRB **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.0005									

Associated Samples: **B21121961-001A**

Run ID: Run Order: ICPMS206-B_220118A: 48 **SampType:** Laboratory Fortified Blank **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/18/2022 23:09 **Prep Date:**
Lab ID: LFB **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.045	0.001	0.050		90.0	88	115				

Associated Samples: **B21121961-001A**

Run ID: Run Order: ICPMS206-B_220118A: 87 **SampType:** Sample Matrix Spike **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/19/2022 02:51 **Prep Date:**
Lab ID: B21121957-001IMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.047	0.001	0.050	0.00	94.0	88	115				

Associated Samples: **B21121961-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: ICPMS206-B_220118A: 88 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/19/2022 02:57 **Prep Date:**
Lab ID: B21121957-001IMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.047	0.001	0.050	0.00	94.0	88	115	0.047	0.4	20.0	

Associated Samples: **B21121961-001A**

Run ID: Run Order: ICPMS206-B_220118A: 86 **SampType:** Serial Dilution **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/19/2022 02:46 **Prep Date:**
Lab ID: B21121957-001IDIL **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.001						0.00		10.0	

Associated Samples: **B21121961-001A**

Run ID: Run Order: ICPMS206-B_220118A: 56 **SampType:** Method Blank **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/18/2022 23:55 **Prep Date:** 12/27/2021 13:36
Lab ID: MB-162497 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.0005									

Associated Samples: **B21121961-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: ICPMS206-B_220118A: 59 **SampType:** Laboratory Control Sample **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/19/2022 00:12 **Prep Date:** 12/27/2021 13:36
Lab ID: LCS4-162497 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.099	0.001	0.100		99.0	88	115				

Associated Samples: **B21121961-001B**

Run ID: Run Order: ICPMS206-B_220118A: 82 **SampType:** Sample Matrix Spike **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/19/2022 02:23 **Prep Date:** 12/27/2021 13:40
Lab ID: B21121957-001HMS4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.100	0.001	0.100	0	99.0	88	115				

Associated Samples: **B21121961-001B**

Run ID: Run Order: ICPMS206-B_220118A: 83 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/19/2022 02:29 **Prep Date:** 12/27/2021 13:40
Lab ID: B21121957-001HMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.096	0.001	0.100	0	96.0	88	115	0.100	3.5	20.0	

Associated Samples: **B21121961-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: ICPMS206-B_220118A: 81 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/19/2022 02:17 **Prep Date:** 12/27/2021 13:40
Lab ID: B21121957-001HPDS1 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.048	0.001	0.052	0	93.0	80	120				

Associated Samples: **B21121961-001B**

Run ID: Run Order: ICPMS206-B_220118A: 78 **SampType:** Serial Dilution **Batch ID:** 162497
Method: SW6020 **Analysis Date:** 01/19/2022 02:00 **Prep Date:** 12/27/2021 13:40
Lab ID: B21121957-001HDIL **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.001						0		10.0	

Associated Samples: **B21121961-001B**

Run ID: Run Order: ICPMS206-B_220118A: 79 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/19/2022 02:06 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.046	0.001	0.050		92.0	90	110				

Associated Samples: **B21121961-001A, B21121961-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: ICPMS206-B_220118A: 93 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373351
Method: SW6020 **Analysis Date:** 01/19/2022 03:26 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.049	0.001	0.050		97.0	90	110				

Associated Samples: **B21121961-001A, B21121961-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 4 **SampType:** Method Blank **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 11:30 **Prep Date:**
Lab ID: MBLK122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromochloromethane	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chlorodibromomethane	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
2-Chlorotoluene	ND	0.50									
Dibromomethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
4-Chlorotoluene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3-Dichloropropane	ND	0.50									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 4 **SampType:** Method Blank **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 11:30 **Prep Date:**
Lab ID: MBLK122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	0.50									
1,1-Dichloropropene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methyl ethyl ketone	ND	10									
Methylene chloride	ND	0.50									
Styrene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
Vinyl chloride	ND	0.50									
m+p-Xylenes	ND	0.50									
o-Xylene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 1,2-Dichloroethane-d4	10	0.50	10		105.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		105.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	85	114				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 4 **SampType:** Method Blank **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 11:30 **Prep Date:**
Lab ID: MBLK122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		103.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211227A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 10:35 **Prep Date:**
Lab ID: LCS122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.5	0.50	5.0		109.0	79	120				
Bromobenzene	5.6	0.50	5.0		112.0	80	120				
Bromochloromethane	5.9	0.50	5.0		118.0	78	123				
Bromodichloromethane	5.6	0.50	5.0		111.0	79	125				
Bromoform	5.8	0.50	5.0		117.0	66	130				
Bromomethane	4.4	0.50	5.0		88.0	53	141				
Carbon tetrachloride	5.0	0.50	5.0		101.0	72	136				
Chlorobenzene	5.5	0.50	5.0		111.0	82	118				
Chlorodibromomethane	5.7	0.50	5.0		114.0	74	126				
Chloroethane	4.3	0.50	5.0		85.0	60	138				
Chloroform	5.1	0.50	5.0		103.0	79	124				
Chloromethane	4.7	0.50	5.0		94.0	50	139				
1,2-Dibromoethane	5.8	0.50	5.0		115.0	78	122				
2-Chlorotoluene	5.2	0.50	5.0		104.0	79	122				
Dibromomethane	5.7	0.50	5.0		114.0	79	123				
1,2-Dichlorobenzene	5.4	0.50	5.0		109.0	80	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 10:35 **Prep Date:**
Lab ID: LCS122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.5	0.50	5.0		109.0	78	122				
1,3-Dichlorobenzene	5.5	0.50	5.0		110.0	80	119				
1,4-Dichlorobenzene	5.3	0.50	5.0		106.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0		85.0	32	152				
1,1-Dichloroethane	5.7	0.50	5.0		114.0	77	125				
1,2-Dichloroethane	5.4	0.50	5.0		107.0	73	128				
1,1-Dichloroethene	5.4	0.50	5.0		108.0	71	131				
cis-1,2-Dichloroethene	5.6	0.50	5.0		113.0	78	123				
trans-1,2-Dichloroethene	5.6	0.50	5.0		112.0	75	124				
1,2-Dichloropropane	5.6	0.50	5.0		112.0	78	122				
1,3-Dichloropropane	5.5	0.50	5.0		110.0	80	119				
2,2-Dichloropropane	5.8	0.50	5.0		115.0	60	139				
1,1-Dichloropropene	5.0	0.50	5.0		99.0	79	125				
cis-1,3-Dichloropropene	5.5	0.50	5.0		111.0	75	124				
trans-1,3-Dichloropropene	6.0	0.50	5.0		119.0	73	127				
Ethylbenzene	5.3	0.50	5.0		106.0	79	121				
Methyl tert-butyl ether (MTBE)	5.7	0.50	5.0		113.0	71	124				
Methyl ethyl ketone	60	10	50		119.0	56	143				
Methylene chloride	5.5	0.50	5.0		110.0	74	124				
Styrene	5.8	0.50	5.0		116.0	78	123				
1,1,1,2-Tetrachloroethane	5.5	0.50	5.0		110.0	78	124				
1,1,2,2-Tetrachloroethane	5.7	0.50	5.0		114.0	71	121				
Tetrachloroethene	5.2	0.50	5.0		104.0	74	129				
Toluene	5.5	0.50	5.0		110.0	80	121				
1,1,1-Trichloroethane	5.2	0.50	5.0		103.0	74	131				
1,1,2-Trichloroethane	5.6	0.50	5.0		112.0	80	119				
Trichloroethene	5.1	0.50	5.0		102.0	79	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 10:35 **Prep Date:**
Lab ID: LCS122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.4	0.50	5.0		88.0	65	141				
1,2,3-Trichloropropane	5.7	0.50	5.0		115.0	73	125				
Vinyl chloride	4.7	0.50	5.0		95.0	58	137				
m+p-Xylenes	11	0.50	10		106.0	80	121				
o-Xylene	5.6	0.50	5.0		113.0	78	122				
Xylenes, Total	16	0.50	15		108.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		103.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		105.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	85	114				
Surr: Toluene-d8	10	0.50	10		105.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211227A: 20 **SampType:** Sample Matrix Spike **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 18:45 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.4	0.50	5.0	0.0	107.0	79	120				
Bromobenzene	5.5	0.50	5.0	0.0	109.0	80	120				
Bromochloromethane	5.8	0.50	5.0	0.0	116.0	78	123				
Bromodichloromethane	5.5	0.50	5.0	0.0	110.0	79	125				
Bromoform	6.3	0.50	5.0	0.0	126.0	66	130				
Bromomethane	1.3	0.50	5.0	0.0	26.0	53	141				S
Carbon tetrachloride	5.2	0.50	5.0	0.0	103.0	72	136				
Chlorobenzene	5.4	0.50	5.0	0.0	107.0	82	118				
Chlorodibromomethane	5.7	0.50	5.0	0.0	114.0	74	126				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 20 **SampType:** Sample Matrix Spike **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 18:45 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.7	0.50	5.0	0.0	95.0	60	138				
Chloroform	5.0	0.50	5.0	0.0	100.0	79	124				
Chloromethane	4.5	0.50	5.0	0.0	90.0	50	139				
1,2-Dibromoethane	5.9	0.50	5.0	0.0	118.0	78	122				
2-Chlorotoluene	5.1	0.50	5.0	0.0	103.0	79	122				
Dibromomethane	5.9	0.50	5.0	0.0	117.0	79	123				
1,2-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	80	119				
4-Chlorotoluene	5.3	0.50	5.0	0.0	106.0	78	122				
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	105.0	80	119				
1,4-Dichlorobenzene	5.1	0.50	5.0	0.0	101.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0	0.0	86.0	32	152				
1,1-Dichloroethane	5.5	0.50	5.0	0.0	109.0	77	125				
1,2-Dichloroethane	5.3	0.50	5.0	0.0	107.0	73	128				
1,1-Dichloroethene	5.2	0.50	5.0	0.0	105.0	71	131				
cis-1,2-Dichloroethene	5.3	0.50	5.0	0.0	107.0	78	123				
trans-1,2-Dichloroethene	5.5	0.50	5.0	0.0	110.0	75	124				
1,2-Dichloropropane	5.3	0.50	5.0	0.0	106.0	78	122				
1,3-Dichloropropane	5.6	0.50	5.0	0.0	111.0	80	119				
2,2-Dichloropropane	5.5	0.50	5.0	0.0	110.0	60	139				
1,1-Dichloropropene	4.9	0.50	5.0	0.0	99.0	79	125				
cis-1,3-Dichloropropene	5.1	0.50	5.0	0.0	103.0	75	124				
trans-1,3-Dichloropropene	5.6	0.50	5.0	0.0	112.0	73	127				
Ethylbenzene	5.1	0.50	5.0	0.0	102.0	79	121				
Methyl tert-butyl ether (MTBE)	5.2	0.50	5.0	0.0	104.0	71	124				
Methyl ethyl ketone	59	10	50	0.0	119.0	56	143				
Methylene chloride	5.2	0.50	5.0	0.0	104.0	74	124				
Styrene	5.1	0.50	5.0	0.0	103.0	78	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 20 **SampType:** Sample Matrix Spike **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 18:45 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0	0.0	105.0	78	124				
1,1,2,2-Tetrachloroethane	6.2	0.50	5.0	0.0	123.0	71	121				S
Tetrachloroethene	5.2	0.50	5.0	0.0	104.0	74	129				
Toluene	5.4	0.50	5.0	0.0	108.0	80	121				
1,1,1-Trichloroethane	5.3	0.50	5.0	0.0	106.0	74	131				
1,1,2-Trichloroethane	5.8	0.50	5.0	0.0	116.0	80	119				
Trichloroethene	5.1	0.50	5.0	0.0	102.0	79	123				
Trichlorofluoromethane	4.1	0.50	5.0	0.0	83.0	65	141				
1,2,3-Trichloropropane	6.1	0.50	5.0	0.0	121.0	73	125				
Vinyl chloride	4.4	0.50	5.0	0.0	89.0	58	137				
m+p-Xylenes	10	0.50	10	0.0	103.0	80	121				
o-Xylene	5.3	0.50	5.0	0.0	105.0	78	122				
Xylenes, Total	16	0.50	15	0.0	104.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	108.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10	0.0	104.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	104.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	105.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211227A: 21 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 19:12 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.5	0.50	5.0	0.0	109.0	79	120	5.4	1.9	20.0	
Bromobenzene	5.8	0.50	5.0	0.0	116.0	80	120	5.5	5.9	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 21 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 19:12 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromochloromethane	5.6	0.50	5.0	0.0	111.0	78	123	5.8	4.6	20.0	
Bromodichloromethane	5.5	0.50	5.0	0.0	111.0	79	125	5.5	0.7	20.0	
Bromoform	6.1	0.50	5.0	0.0	122.0	66	130	6.3	3.5	20.0	
Bromomethane	2.1	0.50	5.0	0.0	42.0	53	141	1.3	46.0	20.0	SR
Carbon tetrachloride	5.4	0.50	5.0	0.0	108.0	72	136	5.2	4.7	20.0	
Chlorobenzene	5.5	0.50	5.0	0.0	109.0	82	118	5.4	2.0	20.0	
Chlorodibromomethane	5.9	0.50	5.0	0.0	118.0	74	126	5.7	3.7	20.0	
Chloroethane	4.9	0.50	5.0	0.0	97.0	60	138	4.7	2.7	20.0	
Chloroform	5.1	0.50	5.0	0.0	102.0	79	124	5.0	2.0	20.0	
Chloromethane	4.7	0.50	5.0	0.0	94.0	50	139	4.5	4.7	20.0	
1,2-Dibromoethane	6.0	0.50	5.0	0.0	120.0	78	122	5.9	2.0	20.0	
2-Chlorotoluene	5.3	0.50	5.0	0.0	107.0	79	122	5.1	3.9	20.0	
Dibromomethane	5.8	0.50	5.0	0.0	116.0	79	123	5.9	1.5	20.0	
1,2-Dichlorobenzene	5.4	0.50	5.0	0.0	108.0	80	119	5.1	5.8	20.0	
4-Chlorotoluene	5.5	0.50	5.0	0.0	110.0	78	122	5.3	3.4	20.0	
1,3-Dichlorobenzene	5.5	0.50	5.0	0.0	110.0	80	119	5.3	4.2	20.0	
1,4-Dichlorobenzene	5.3	0.50	5.0	0.0	107.0	79	118	5.1	5.5	20.0	
Dichlorodifluoromethane	4.6	0.50	5.0	0.0	91.0	32	152	4.3	6.1	20.0	
1,1-Dichloroethane	5.6	0.50	5.0	0.0	113.0	77	125	5.5	3.0	20.0	
1,2-Dichloroethane	5.5	0.50	5.0	0.0	109.0	73	128	5.3	2.4	20.0	
1,1-Dichloroethene	5.8	0.50	5.0	0.0	116.0	71	131	5.2	10.0	20.0	
cis-1,2-Dichloroethene	5.4	0.50	5.0	0.0	109.0	78	123	5.3	1.9	20.0	
trans-1,2-Dichloroethene	5.6	0.50	5.0	0.0	113.0	75	124	5.5	2.3	20.0	
1,2-Dichloropropane	5.4	0.50	5.0	0.0	108.0	78	122	5.3	1.7	20.0	
1,3-Dichloropropane	5.6	0.50	5.0	0.0	112.0	80	119	5.6	0.6	20.0	
2,2-Dichloropropane	5.6	0.50	5.0	0.0	112.0	60	139	5.5	1.7	20.0	
1,1-Dichloropropene	5.1	0.50	5.0	0.0	102.0	79	125	4.9	3.3	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 21 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 19:12 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	5.4	0.50	5.0	0.0	109.0	75	124	5.1	5.5	20.0	
trans-1,3-Dichloropropene	5.9	0.50	5.0	0.0	118.0	73	127	5.6	5.5	20.0	
Ethylbenzene	5.3	0.50	5.0	0.0	107.0	79	121	5.1	4.9	20.0	
Methyl tert-butyl ether (MTBE)	5.4	0.50	5.0	0.0	109.0	71	124	5.2	4.4	20.0	
Methyl ethyl ketone	59	10	50	0.0	119.0	56	143	59	0.0	20.0	
Methylene chloride	5.3	0.50	5.0	0.0	107.0	74	124	5.2	2.8	20.0	
Styrene	5.5	0.50	5.0	0.0	109.0	78	123	5.1	6.1	20.0	
1,1,1,2-Tetrachloroethane	5.5	0.50	5.0	0.0	109.0	78	124	5.3	3.8	20.0	
1,1,2,2-Tetrachloroethane	6.0	0.50	5.0	0.0	121.0	71	121	6.2	2.1	20.0	
Tetrachloroethene	5.4	0.50	5.0	0.0	109.0	74	129	5.2	4.3	20.0	
Toluene	5.6	0.50	5.0	0.0	111.0	80	121	5.4	3.3	20.0	
1,1,1-Trichloroethane	5.3	0.50	5.0	0.0	106.0	74	131	5.3	0.3	20.0	
1,1,2-Trichloroethane	5.7	0.50	5.0	0.0	114.0	80	119	5.8	1.2	20.0	
Trichloroethene	5.4	0.50	5.0	0.0	108.0	79	123	5.1	5.4	20.0	
Trichlorofluoromethane	4.6	0.50	5.0	0.0	92.0	65	141	4.1	10.0	20.0	
1,2,3-Trichloropropane	6.0	0.50	5.0	0.0	120.0	73	125	6.1	1.3	20.0	
Vinyl chloride	4.7	0.50	5.0	0.0	94.0	58	137	4.4	5.7	20.0	
m+p-Xylenes	11	0.50	10	0.0	108.0	80	121	10	4.7	20.0	
o-Xylene	5.4	0.50	5.0	0.0	107.0	78	122	5.3	2.0	20.0	
Xylenes, Total	16	0.50	15	0.0	108.0	79	121	16	3.8	20.0	
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	104.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	102.0	80	119	0.0			
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	104.0	85	114	0.0			
Surr: Toluene-d8	10	0.50	10	0.0	104.0	89	112	0.0			

Associated Samples: **B21121961-001G, B21121961-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 4 **SampType:** Method Blank **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 12:19 **Prep Date:**
Lab ID: MBLK122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromochloromethane	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chlorodibromomethane	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
2-Chlorotoluene	ND	0.50									
Dibromomethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
4-Chlorotoluene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3-Dichloropropane	ND	0.50									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 4 **SampType:** Method Blank **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 12:19 **Prep Date:**
Lab ID: MBLK122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	0.50									
1,1-Dichloropropene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methyl ethyl ketone	ND	10									
Methylene chloride	ND	0.50									
Styrene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
Vinyl chloride	ND	0.50									
m+p-Xylenes	ND	0.50									
o-Xylene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 1,2-Dichloroethane-d4	10	0.50	10		102.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		102.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	85	114				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 4 **SampType:** Method Blank **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 12:19 **Prep Date:**
Lab ID: MBLK122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		103.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211228A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 11:24 **Prep Date:**
Lab ID: LCS122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.3	0.50	5.0		106.0	79	120				
Bromobenzene	5.4	0.50	5.0		108.0	80	120				
Bromochloromethane	5.3	0.50	5.0		106.0	78	123				
Bromodichloromethane	5.4	0.50	5.0		107.0	79	125				
Bromoform	5.5	0.50	5.0		109.0	66	130				
Bromomethane	4.8	0.50	5.0		96.0	53	141				
Carbon tetrachloride	5.1	0.50	5.0		101.0	72	136				
Chlorobenzene	5.5	0.50	5.0		109.0	82	118				
Chlorodibromomethane	5.4	0.50	5.0		108.0	74	126				
Chloroethane	4.0	0.50	5.0		80.0	60	138				
Chloroform	5.0	0.50	5.0		100.0	79	124				
Chloromethane	4.6	0.50	5.0		92.0	50	139				
1,2-Dibromoethane	5.4	0.50	5.0		107.0	78	122				
2-Chlorotoluene	5.2	0.50	5.0		105.0	79	122				
Dibromomethane	5.3	0.50	5.0		107.0	79	123				
1,2-Dichlorobenzene	5.3	0.50	5.0		105.0	80	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 11:24 **Prep Date:**
Lab ID: LCS122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.4	0.50	5.0		109.0	78	122				
1,3-Dichlorobenzene	5.4	0.50	5.0		109.0	80	119				
1,4-Dichlorobenzene	5.2	0.50	5.0		104.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0		86.0	32	152				
1,1-Dichloroethane	5.4	0.50	5.0		108.0	77	125				
1,2-Dichloroethane	5.1	0.50	5.0		103.0	73	128				
1,1-Dichloroethene	4.6	0.50	5.0		93.0	71	131				
cis-1,2-Dichloroethene	5.3	0.50	5.0		106.0	78	123				
trans-1,2-Dichloroethene	5.5	0.50	5.0		110.0	75	124				
1,2-Dichloropropane	5.3	0.50	5.0		106.0	78	122				
1,3-Dichloropropane	5.2	0.50	5.0		105.0	80	119				
2,2-Dichloropropane	5.6	0.50	5.0		112.0	60	139				
1,1-Dichloropropene	4.9	0.50	5.0		98.0	79	125				
cis-1,3-Dichloropropene	5.2	0.50	5.0		104.0	75	124				
trans-1,3-Dichloropropene	5.5	0.50	5.0		111.0	73	127				
Ethylbenzene	5.3	0.50	5.0		106.0	79	121				
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0		99.0	71	124				
Methyl ethyl ketone	53	10	50		107.0	56	143				
Methylene chloride	5.1	0.50	5.0		102.0	74	124				
Styrene	5.6	0.50	5.0		113.0	78	123				
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0		107.0	78	124				
1,1,2,2-Tetrachloroethane	5.2	0.50	5.0		104.0	71	121				
Tetrachloroethene	5.5	0.50	5.0		109.0	74	129				
Toluene	5.4	0.50	5.0		107.0	80	121				
1,1,1-Trichloroethane	5.2	0.50	5.0		105.0	74	131				
1,1,2-Trichloroethane	5.3	0.50	5.0		105.0	80	119				
Trichloroethene	5.1	0.50	5.0		103.0	79	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 11:24 **Prep Date:**
Lab ID: LCS122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.3	0.50	5.0		86.0	65	141				
1,2,3-Trichloropropane	4.9	0.50	5.0		99.0	73	125				
Vinyl chloride	4.8	0.50	5.0		95.0	58	137				
m+p-Xylenes	11	0.50	10		109.0	80	121				
o-Xylene	5.6	0.50	5.0		112.0	78	122				
Xylenes, Total	17	0.50	15		110.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		101.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		104.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	85	114				
Surr: Toluene-d8	11	0.50	10		106.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211228A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:09 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0	0.0	104.0	79	120				
Bromobenzene	5.4	0.50	5.0	0.0	108.0	80	120				
Bromochloromethane	5.2	0.50	5.0	0.0	104.0	78	123				
Bromodichloromethane	5.3	0.50	5.0	0.0	106.0	79	125				
Bromoform	5.5	0.50	5.0	0.0	110.0	66	130				
Bromomethane	1.0	0.50	5.0	0.0	20.0	53	141				S
Carbon tetrachloride	5.2	0.50	5.0	0.0	103.0	72	136				
Chlorobenzene	5.3	0.50	5.0	0.0	106.0	82	118				
Chlorodibromomethane	5.3	0.50	5.0	0.0	106.0	74	126				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:09 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.4	0.50	5.0	0.0	89.0	60	138				
Chloroform	4.8	0.50	5.0	0.0	97.0	79	124				
Chloromethane	4.1	0.50	5.0	0.0	83.0	50	139				
1,2-Dibromoethane	5.2	0.50	5.0	0.0	103.0	78	122				
2-Chlorotoluene	5.1	0.50	5.0	0.0	102.0	79	122				
Dibromomethane	5.2	0.50	5.0	0.0	104.0	79	123				
1,2-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	80	119				
4-Chlorotoluene	5.4	0.50	5.0	0.0	107.0	78	122				
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	106.0	80	119				
1,4-Dichlorobenzene	5.1	0.50	5.0	0.0	103.0	79	118				
Dichlorodifluoromethane	4.0	0.50	5.0	0.0	80.0	32	152				
1,1-Dichloroethane	5.3	0.50	5.0	0.0	106.0	77	125				
1,2-Dichloroethane	5.0	0.50	5.0	0.0	100.0	73	128				
1,1-Dichloroethene	4.4	0.50	5.0	0.0	88.0	71	131				
cis-1,2-Dichloroethene	5.0	0.50	5.0	0.0	101.0	78	123				
trans-1,2-Dichloroethene	4.5	0.50	5.0	0.0	90.0	75	124				
1,2-Dichloropropane	5.1	0.50	5.0	0.0	102.0	78	122				
1,3-Dichloropropane	5.1	0.50	5.0	0.0	102.0	80	119				
2,2-Dichloropropane	5.2	0.50	5.0	0.0	103.0	60	139				
1,1-Dichloropropene	5.0	0.50	5.0	0.0	99.0	79	125				
cis-1,3-Dichloropropene	4.9	0.50	5.0	0.0	99.0	75	124				
trans-1,3-Dichloropropene	5.3	0.50	5.0	0.0	105.0	73	127				
Ethylbenzene	5.2	0.50	5.0	0.0	104.0	79	121				
Methyl tert-butyl ether (MTBE)	4.1	0.50	5.0	0.0	82.0	71	124				
Methyl ethyl ketone	51	10	50	0.0	101.0	56	143				
Methylene chloride	4.1	0.50	5.0	0.0	83.0	74	124				
Styrene	5.4	0.50	5.0	0.0	109.0	78	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:09 **Prep Date:**
Lab ID: B21121841-001CMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0	0.0	105.0	78	124				
1,1,2,2-Tetrachloroethane	5.2	0.50	5.0	0.0	105.0	71	121				
Tetrachloroethene	5.4	0.50	5.0	0.0	108.0	74	129				
Toluene	5.3	0.50	5.0	0.0	106.0	80	121				
1,1,1-Trichloroethane	5.2	0.50	5.0	0.0	103.0	74	131				
1,1,2-Trichloroethane	5.1	0.50	5.0	0.0	103.0	80	119				
Trichloroethene	5.1	0.50	5.0	0.0	101.0	79	123				
Trichlorofluoromethane	4.1	0.50	5.0	0.0	81.0	65	141				
1,2,3-Trichloropropane	5.1	0.50	5.0	0.0	103.0	73	125				
Vinyl chloride	4.0	0.50	5.0	0.0	81.0	58	137				
m+p-Xylenes	11	0.50	10	0.0	105.0	80	121				
o-Xylene	5.3	0.50	5.0	0.0	106.0	78	122				
Xylenes, Total	16	0.50	15	0.0	105.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	101.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10	0.0	102.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	104.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	105.0	89	112				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211228A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:36 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.3	0.50	5.0	0.0	106.0	79	120	5.2	2.4	20.0	
Bromobenzene	5.3	0.50	5.0	0.0	107.0	80	120	5.4	0.9	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:36 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromochloromethane	5.2	0.50	5.0	0.0	104.0	78	123	5.2	0.1	20.0	
Bromodichloromethane	5.3	0.50	5.0	0.0	106.0	79	125	5.3	0.6	20.0	
Bromoform	5.5	0.50	5.0	0.0	109.0	66	130	5.5	1.0	20.0	
Bromomethane	1.9	0.50	5.0	0.0	38.0	53	141	1.0	61.0	20.0	SR
Carbon tetrachloride	5.3	0.50	5.0	0.0	105.0	72	136	5.2	1.7	20.0	
Chlorobenzene	5.3	0.50	5.0	0.0	106.0	82	118	5.3	0.0	20.0	
Chlorodibromomethane	5.3	0.50	5.0	0.0	106.0	74	126	5.3	0.4	20.0	
Chloroethane	4.1	0.50	5.0	0.0	83.0	60	138	4.4	7.3	20.0	
Chloroform	4.9	0.50	5.0	0.0	98.0	79	124	4.8	1.5	20.0	
Chloromethane	4.6	0.50	5.0	0.0	93.0	50	139	4.1	11.0	20.0	
1,2-Dibromoethane	5.2	0.50	5.0	0.0	104.0	78	122	5.2	0.3	20.0	
2-Chlorotoluene	5.2	0.50	5.0	0.0	103.0	79	122	5.1	1.2	20.0	
Dibromomethane	5.2	0.50	5.0	0.0	105.0	79	123	5.2	1.1	20.0	
1,2-Dichlorobenzene	5.3	0.50	5.0	0.0	107.0	80	119	5.1	4.5	20.0	
4-Chlorotoluene	5.4	0.50	5.0	0.0	109.0	78	122	5.4	1.2	20.0	
1,3-Dichlorobenzene	5.4	0.50	5.0	0.0	107.0	80	119	5.3	0.8	20.0	
1,4-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	79	118	5.1	0.6	20.0	
Dichlorodifluoromethane	4.4	0.50	5.0	0.0	88.0	32	152	4.0	9.1	20.0	
1,1-Dichloroethane	5.4	0.50	5.0	0.0	108.0	77	125	5.3	1.4	20.0	
1,2-Dichloroethane	5.1	0.50	5.0	0.0	102.0	73	128	5.0	1.6	20.0	
1,1-Dichloroethene	5.6	0.50	5.0	0.0	111.0	71	131	4.4	23.0	20.0	R
cis-1,2-Dichloroethene	5.2	0.50	5.0	0.0	104.0	78	123	5.0	3.5	20.0	
trans-1,2-Dichloroethene	5.5	0.50	5.0	0.0	110.0	75	124	4.5	20.0	20.0	
1,2-Dichloropropane	5.2	0.50	5.0	0.0	103.0	78	122	5.1	1.4	20.0	
1,3-Dichloropropane	4.9	0.50	5.0	0.0	98.0	80	119	5.1	3.7	20.0	
2,2-Dichloropropane	5.2	0.50	5.0	0.0	104.0	60	139	5.2	0.9	20.0	
1,1-Dichloropropene	4.9	0.50	5.0	0.0	99.0	79	125	5.0	0.1	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 19:36 **Prep Date:**
Lab ID: B21121841-001CMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	4.9	0.50	5.0	0.0	97.0	75	124	4.9	1.2	20.0	
trans-1,3-Dichloropropene	5.3	0.50	5.0	0.0	105.0	73	127	5.3	0.1	20.0	
Ethylbenzene	5.3	0.50	5.0	0.0	105.0	79	121	5.2	1.1	20.0	
Methyl tert-butyl ether (MTBE)	5.0	0.50	5.0	0.0	99.0	71	124	4.1	19.0	20.0	
Methyl ethyl ketone	52	10	50	0.0	105.0	56	143	51	3.2	20.0	
Methylene chloride	5.0	0.50	5.0	0.0	101.0	74	124	4.1	19.0	20.0	
Styrene	5.4	0.50	5.0	0.0	109.0	78	123	5.4	0.2	20.0	
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0	0.0	105.0	78	124	5.3	0.3	20.0	
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0	0.0	107.0	71	121	5.2	1.7	20.0	
Tetrachloroethene	5.4	0.50	5.0	0.0	108.0	74	129	5.4	0.1	20.0	
Toluene	5.4	0.50	5.0	0.0	107.0	80	121	5.3	1.4	20.0	
1,1,1-Trichloroethane	5.2	0.50	5.0	0.0	103.0	74	131	5.2	0.1	20.0	
1,1,2-Trichloroethane	5.4	0.50	5.0	0.0	107.0	80	119	5.1	4.4	20.0	
Trichloroethene	5.0	0.50	5.0	0.0	101.0	79	123	5.1	0.5	20.0	
Trichlorofluoromethane	4.6	0.50	5.0	0.0	92.0	65	141	4.1	12.0	20.0	
1,2,3-Trichloropropane	5.1	0.50	5.0	0.0	101.0	73	125	5.1	1.8	20.0	
Vinyl chloride	4.6	0.50	5.0	0.0	92.0	58	137	4.0	13.0	20.0	
m+p-Xylenes	11	0.50	10	0.0	105.0	80	121	11	0.3	20.0	
o-Xylene	5.5	0.50	5.0	0.0	109.0	78	122	5.3	3.3	20.0	
Xylenes, Total	16	0.50	15	0.0	107.0	79	121	16	1.3	20.0	
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	100.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	104.0	80	119	0.0			
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	103.0	85	114	0.0			
Surr: Toluene-d8	11	0.50	10	0.0	106.0	89	112	0.0			

Associated Samples: **B21121961-001G, B21121961-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 09:55 **Prep Date:**
Lab ID: CCV122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0		103.0	80	120				
Bromobenzene	5.1	0.50	5.0		103.0	80	120				
Bromochloromethane	5.4	0.50	5.0		107.0	80	120				
Bromodichloromethane	5.3	0.50	5.0		106.0	80	120				
Bromoform	5.4	0.50	5.0		108.0	80	120				
Bromomethane	4.9	0.50	5.0		99.0	80	120				
Carbon tetrachloride	5.0	0.50	5.0		99.0	80	120				
Chlorobenzene	5.3	0.50	5.0		105.0	80	120				
Chlorodibromomethane	5.5	0.50	5.0		110.0	80	120				
Chloroethane	4.1	0.50	5.0		82.0	80	120				
Chloroform	5.1	0.50	5.0		101.0	80	120				
Chloromethane	4.8	0.50	5.0		97.0	80	120				
1,2-Dibromoethane	5.5	0.50	5.0		109.0	80	120				
2-Chlorotoluene	5.0	0.50	5.0		100.0	80	120				
Dibromomethane	5.3	0.50	5.0		106.0	80	120				
1,2-Dichlorobenzene	5.1	0.50	5.0		102.0	80	120				
4-Chlorotoluene	5.1	0.50	5.0		102.0	80	120				
1,3-Dichlorobenzene	5.0	0.50	5.0		101.0	80	120				
1,4-Dichlorobenzene	5.0	0.50	5.0		101.0	80	120				
Dichlorodifluoromethane	4.0	0.50	5.0		81.0	80	120				
1,1-Dichloroethane	5.0	0.50	5.0		101.0	80	120				
1,2-Dichloroethane	5.4	0.50	5.0		108.0	80	120				
1,1-Dichloroethene	4.5	0.50	5.0		89.0	80	120				
cis-1,2-Dichloroethene	5.4	0.50	5.0		108.0	80	120				
trans-1,2-Dichloroethene	4.8	0.50	5.0		95.0	80	120				
1,2-Dichloropropane	5.2	0.50	5.0		105.0	80	120				
1,3-Dichloropropane	5.5	0.50	5.0		109.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 09:55 **Prep Date:**
Lab ID: CCV122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	5.7	0.50	5.0		114.0	80	120				
1,1-Dichloropropene	4.9	0.50	5.0		98.0	80	120				
cis-1,3-Dichloropropene	5.5	0.50	5.0		110.0	80	120				
trans-1,3-Dichloropropene	5.6	0.50	5.0		111.0	80	120				
Ethylbenzene	5.1	0.50	5.0		102.0	80	120				
Methyl tert-butyl ether (MTBE)	5.1	0.50	5.0		103.0	80	120				
Methyl ethyl ketone	60	10	50		119.0	80	120				
Methylene chloride	4.5	0.50	5.0		91.0	80	120				
Styrene	5.5	0.50	5.0		109.0	80	120				
1,1,1,2-Tetrachloroethane	5.4	0.50	5.0		107.0	80	120				
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0		106.0	80	120				
Tetrachloroethene	4.9	0.50	5.0		99.0	80	120				
Toluene	5.3	0.50	5.0		105.0	80	120				
1,1,1-Trichloroethane	5.0	0.50	5.0		100.0	80	120				
1,1,2-Trichloroethane	5.4	0.50	5.0		108.0	80	120				
Trichloroethene	5.0	0.50	5.0		100.0	80	120				
Trichlorofluoromethane	4.1	0.50	5.0		82.0	80	120				
1,2,3-Trichloropropane	5.3	0.50	5.0		107.0	80	120				
Vinyl chloride	4.6	0.50	5.0		92.0	80	120				
m+p-Xylenes	11	0.50	10		106.0	80	120				
o-Xylene	5.3	0.50	5.0		106.0	80	120				
Xylenes, Total	16	0.50	15		106.0	80	120				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		102.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		103.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 09:55 **Prep Date:**
Lab ID: CCV122721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		102.0	80	120				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211227A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 20:07 **Prep Date:**
Lab ID: CCV122721_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.9	0.50	5.0		98.0	50	150				
Bromobenzene	5.0	0.50	5.0		100.0	50	150				
Bromochloromethane	5.2	0.50	5.0		104.0	50	150				
Bromodichloromethane	5.0	0.50	5.0		101.0	50	150				
Bromoform	5.0	0.50	5.0		100.0	50	150				
Bromomethane	2.4	0.50	5.0		47.0	50	150				S
Carbon tetrachloride	4.9	0.50	5.0		97.0	50	150				
Chlorobenzene	4.9	0.50	5.0		99.0	50	150				
Chlorodibromomethane	5.0	0.50	5.0		100.0	50	150				
Chloroethane	4.0	0.50	5.0		79.0	50	150				
Chloroform	4.8	0.50	5.0		96.0	50	150				
Chloromethane	4.4	0.50	5.0		89.0	50	150				
1,2-Dibromoethane	5.0	0.50	5.0		101.0	50	150				
2-Chlorotoluene	4.9	0.50	5.0		99.0	50	150				
Dibromomethane	5.1	0.50	5.0		101.0	50	150				
1,2-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 20:07 **Prep Date:**
Lab ID: CCV122721_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.1	0.50	5.0		101.0	50	150				
1,3-Dichlorobenzene	5.0	0.50	5.0		100.0	50	150				
1,4-Dichlorobenzene	4.8	0.50	5.0		95.0	50	150				
Dichlorodifluoromethane	4.2	0.50	5.0		84.0	50	150				
1,1-Dichloroethane	4.9	0.50	5.0		98.0	50	150				
1,2-Dichloroethane	5.0	0.50	5.0		99.0	50	150				
1,1-Dichloroethene	5.0	0.50	5.0		100.0	50	150				
cis-1,2-Dichloroethene	4.9	0.50	5.0		97.0	50	150				
trans-1,2-Dichloroethene	4.9	0.50	5.0		98.0	50	150				
1,2-Dichloropropane	5.1	0.50	5.0		101.0	50	150				
1,3-Dichloropropane	5.0	0.50	5.0		100.0	50	150				
2,2-Dichloropropane	4.9	0.50	5.0		97.0	50	150				
1,1-Dichloropropene	4.7	0.50	5.0		94.0	50	150				
cis-1,3-Dichloropropene	5.0	0.50	5.0		101.0	50	150				
trans-1,3-Dichloropropene	5.0	0.50	5.0		100.0	50	150				
Ethylbenzene	4.9	0.50	5.0		99.0	50	150				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		95.0	50	150				
Methyl ethyl ketone	51	10	50		103.0	50	150				
Methylene chloride	4.7	0.50	5.0		94.0	50	150				
Styrene	5.2	0.50	5.0		104.0	50	150				
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0		100.0	50	150				
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0		102.0	50	150				
Tetrachloroethene	5.1	0.50	5.0		102.0	50	150				
Toluene	5.2	0.50	5.0		104.0	50	150				
1,1,1-Trichloroethane	4.8	0.50	5.0		95.0	50	150				
1,1,2-Trichloroethane	4.8	0.50	5.0		97.0	50	150				
Trichloroethene	4.9	0.50	5.0		98.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211227A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372727
Method: SW8260B **Analysis Date:** 12/27/2021 20:07 **Prep Date:**
Lab ID: CCV122721_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.2	0.50	5.0		84.0	50	150				
1,2,3-Trichloropropane	4.7	0.50	5.0		95.0	50	150				
Vinyl chloride	4.2	0.50	5.0		84.0	50	150				
m+p-Xylenes	10	0.50	10		101.0	50	150				
o-Xylene	5.1	0.50	5.0		103.0	50	150				
Xylenes, Total	15	0.50	15		102.0	50	150				
Surr: 1,2-Dichloroethane-d4	9.8	0.50	10		98.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		102.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	50	150				
Surr: Toluene-d8	11	0.50	10		106.0	50	150				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211228A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 10:48 **Prep Date:**
Lab ID: CCV122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0		100.0	80	120				
Bromobenzene	5.3	0.50	5.0		105.0	80	120				
Bromochloromethane	5.2	0.50	5.0		104.0	80	120				
Bromodichloromethane	5.1	0.50	5.0		102.0	80	120				
Bromoform	5.4	0.50	5.0		108.0	80	120				
Bromomethane	4.9	0.50	5.0		97.0	80	120				
Carbon tetrachloride	4.8	0.50	5.0		96.0	80	120				
Chlorobenzene	5.1	0.50	5.0		102.0	80	120				
Chlorodibromomethane	5.2	0.50	5.0		105.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 10:48 **Prep Date:**
Lab ID: CCV122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.4	0.50	5.0		88.0	80	120				
Chloroform	4.8	0.50	5.0		96.0	80	120				
Chloromethane	4.5	0.50	5.0		89.0	80	120				
1,2-Dibromoethane	5.2	0.50	5.0		103.0	80	120				
2-Chlorotoluene	5.1	0.50	5.0		101.0	80	120				
Dibromomethane	5.1	0.50	5.0		102.0	80	120				
1,2-Dichlorobenzene	5.0	0.50	5.0		100.0	80	120				
4-Chlorotoluene	5.1	0.50	5.0		102.0	80	120				
1,3-Dichlorobenzene	5.0	0.50	5.0		101.0	80	120				
1,4-Dichlorobenzene	5.0	0.50	5.0		99.0	80	120				
Dichlorodifluoromethane	4.1	0.50	5.0		82.0	80	120				
1,1-Dichloroethane	5.0	0.50	5.0		99.0	80	120				
1,2-Dichloroethane	5.1	0.50	5.0		102.0	80	120				
1,1-Dichloroethene	5.0	0.50	5.0		99.0	80	120				
cis-1,2-Dichloroethene	5.0	0.50	5.0		100.0	80	120				
trans-1,2-Dichloroethene	4.9	0.50	5.0		98.0	80	120				
1,2-Dichloropropane	5.3	0.50	5.0		107.0	80	120				
1,3-Dichloropropane	5.2	0.50	5.0		105.0	80	120				
2,2-Dichloropropane	5.2	0.50	5.0		103.0	80	120				
1,1-Dichloropropene	4.8	0.50	5.0		95.0	80	120				
cis-1,3-Dichloropropene	5.3	0.50	5.0		106.0	80	120				
trans-1,3-Dichloropropene	5.4	0.50	5.0		107.0	80	120				
Ethylbenzene	5.0	0.50	5.0		101.0	80	120				
Methyl tert-butyl ether (MTBE)	5.0	0.50	5.0		99.0	80	120				
Methyl ethyl ketone	50	10	50		101.0	80	120				
Methylene chloride	4.7	0.50	5.0		95.0	80	120				
Styrene	5.3	0.50	5.0		107.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 10:48 **Prep Date:**
Lab ID: CCV122821_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	5.2	0.50	5.0		105.0	80	120				
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0		105.0	80	120				
Tetrachloroethene	5.0	0.50	5.0		100.0	80	120				
Toluene	5.3	0.50	5.0		105.0	80	120				
1,1,1-Trichloroethane	4.9	0.50	5.0		99.0	80	120				
1,1,2-Trichloroethane	5.1	0.50	5.0		103.0	80	120				
Trichloroethene	5.0	0.50	5.0		99.0	80	120				
Trichlorofluoromethane	4.3	0.50	5.0		86.0	80	120				
1,2,3-Trichloropropane	5.1	0.50	5.0		101.0	80	120				
Vinyl chloride	4.4	0.50	5.0		89.0	80	120				
m+p-Xylenes	10	0.50	10		105.0	80	120				
o-Xylene	5.3	0.50	5.0		105.0	80	120				
Xylenes, Total	16	0.50	15		105.0	80	120				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		100.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		102.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		105.0	80	120				
Surr: Toluene-d8	11	0.50	10		108.0	80	120				

Associated Samples: **B21121961-001G, B21121961-003A**

Run ID: Run Order: VOA5975C.I_211228A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 20:31 **Prep Date:**
Lab ID: CCV122821_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.9	0.50	5.0		98.0	50	150				
Bromobenzene	4.9	0.50	5.0		98.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 20:31 **Prep Date:**
Lab ID: CCV122821_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromochloromethane	4.9	0.50	5.0		98.0	50	150				
Bromodichloromethane	5.0	0.50	5.0		99.0	50	150				
Bromoform	4.8	0.50	5.0		96.0	50	150				
Bromomethane	2.4	0.50	5.0		47.0	50	150				S
Carbon tetrachloride	4.9	0.50	5.0		98.0	50	150				
Chlorobenzene	5.0	0.50	5.0		99.0	50	150				
Chlorodibromomethane	5.0	0.50	5.0		99.0	50	150				
Chloroethane	4.2	0.50	5.0		84.0	50	150				
Chloroform	4.6	0.50	5.0		92.0	50	150				
Chloromethane	4.2	0.50	5.0		84.0	50	150				
1,2-Dibromoethane	5.0	0.50	5.0		99.0	50	150				
2-Chlorotoluene	4.6	0.50	5.0		93.0	50	150				
Dibromomethane	4.8	0.50	5.0		95.0	50	150				
1,2-Dichlorobenzene	4.7	0.50	5.0		93.0	50	150				
4-Chlorotoluene	4.9	0.50	5.0		98.0	50	150				
1,3-Dichlorobenzene	4.8	0.50	5.0		95.0	50	150				
1,4-Dichlorobenzene	4.6	0.50	5.0		93.0	50	150				
Dichlorodifluoromethane	4.0	0.50	5.0		79.0	50	150				
1,1-Dichloroethane	4.7	0.50	5.0		94.0	50	150				
1,2-Dichloroethane	4.9	0.50	5.0		98.0	50	150				
1,1-Dichloroethene	4.8	0.50	5.0		96.0	50	150				
cis-1,2-Dichloroethene	4.7	0.50	5.0		94.0	50	150				
trans-1,2-Dichloroethene	4.8	0.50	5.0		95.0	50	150				
1,2-Dichloropropane	5.0	0.50	5.0		100.0	50	150				
1,3-Dichloropropane	4.8	0.50	5.0		97.0	50	150				
2,2-Dichloropropane	4.7	0.50	5.0		94.0	50	150				
1,1-Dichloropropene	4.7	0.50	5.0		94.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: VOA5975C.I_211228A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372824
Method: SW8260B **Analysis Date:** 12/28/2021 20:31 **Prep Date:**
Lab ID: CCV122821_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	4.8	0.50	5.0		95.0	50	150				
trans-1,3-Dichloropropene	5.0	0.50	5.0		100.0	50	150				
Ethylbenzene	4.9	0.50	5.0		98.0	50	150				
Methyl tert-butyl ether (MTBE)	4.5	0.50	5.0		91.0	50	150				
Methyl ethyl ketone	48	10	50		96.0	50	150				
Methylene chloride	4.7	0.50	5.0		95.0	50	150				
Styrene	5.2	0.50	5.0		103.0	50	150				
1,1,1,2-Tetrachloroethane	4.9	0.50	5.0		99.0	50	150				
1,1,2,2-Tetrachloroethane	4.9	0.50	5.0		98.0	50	150				
Tetrachloroethene	5.2	0.50	5.0		104.0	50	150				
Toluene	5.0	0.50	5.0		100.0	50	150				
1,1,1-Trichloroethane	4.8	0.50	5.0		97.0	50	150				
1,1,2-Trichloroethane	4.9	0.50	5.0		98.0	50	150				
Trichloroethene	4.8	0.50	5.0		96.0	50	150				
Trichlorofluoromethane	4.1	0.50	5.0		81.0	50	150				
1,2,3-Trichloropropane	4.6	0.50	5.0		93.0	50	150				
Vinyl chloride	4.0	0.50	5.0		81.0	50	150				
m+p-Xylenes	10	0.50	10		102.0	50	150				
o-Xylene	5.2	0.50	5.0		103.0	50	150				
Xylenes, Total	15	0.50	15		103.0	50	150				
Surr: 1,2-Dichloroethane-d4	9.9	0.50	10		99.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		103.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	50	150				
Surr: Toluene-d8	11	0.50	10		106.0	50	150				

Associated Samples: **B21121961-001G, B21121961-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GECD.I_211228A: 10 **SampType:** Method Blank **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 16:10 **Prep Date:** 12/28/2021 09:04
Lab ID: MB-162519 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.0050									
Surr: 1,1,1,2-Tetrachloroethane	0.086	0.020	0.10		86.0	70	130				

Associated Samples: **B21121961-001H, B21121961-004A**

Run ID: Run Order: GECD.I_211228A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 16:30 **Prep Date:** 12/28/2021 09:04
Lab ID: LCS-162519 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.24	0.010	0.25		96.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.084	0.020	0.10		84.0	70	130				

Associated Samples: **B21121961-001H, B21121961-004A**

Run ID: Run Order: GECD.I_211228A: 12 **SampType:** Laboratory Control Sample **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 16:50 **Prep Date:** 12/28/2021 09:05
Lab ID: LCS1-162519 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.095	0.010	0.10		95.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.084	0.020	0.10		84.0	70	130				

Associated Samples: **B21121961-001H, B21121961-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GECD.I_211228A: 26 **SampType:** Sample Matrix Spike **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 22:29 **Prep Date:** 12/28/2021 09:08
Lab ID: B21121957-001EMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25	0.0	94.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.082	0.020	0.099	0.0	83.0	70	130				

Associated Samples: **B21121961-001H, B21121961-004A**

Run ID: Run Order: GECD.I_211228A: 27 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 22:49 **Prep Date:** 12/28/2021 09:08
Lab ID: B21121957-001EMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.24	0.010	0.25	0.0	96.0	60	140	0.23	3.4	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.086	0.020	0.10	0.0	86.0	70	130	0.0			

Associated Samples: **B21121961-001H, B21121961-004A**

Run ID: Run Order: GECD.I_211228A: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 15:51 **Prep Date:** 12/28/2021 09:05
Lab ID: CAL3-162519 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.10		103.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.095	0.020	0.10		95.0	80	120				

Associated Samples: **B21121961-001H, B21121961-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GECD.I_211228A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162519
Method: SW8011 **Analysis Date:** 12/28/2021 20:49 **Prep Date:** 12/28/2021 09:05
Lab ID: CAL5-162519 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.41	0.010	0.40		102.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.44	0.020	0.40		110.0	80	120				

Associated Samples: **B21121961-001H, B21121961-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: PE 1_211228A: 19 **SampType:** Method Blank **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 21:57 **Prep Date:**
Lab ID: MBLK_1228PE126r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	21	1.0	25		83.0	70	130				

Associated Samples: **B21121961-001F, B21121961-002A**

Run ID: Run Order: PE 1_211228A: 18 **SampType:** Laboratory Control Sample **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 21:23 **Prep Date:**
Lab ID: LCS_1228PE125r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	165	20	170		97.0	78	122				
Total Purgeable Hydrocarbons	198	20	200		99.0	70	130				
Surr: Trifluorotoluene	24	1.0	25		94.0	70	130				

Associated Samples: **B21121961-001F, B21121961-002A**

Run ID: Run Order: PE 1_211228A: 11 **SampType:** Sample Matrix Spike **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 16:49 **Prep Date:**
Lab ID: B21121841-001DMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	168	20	170	0.0	99.0	78	122				
Total Purgeable Hydrocarbons	203	20	200	0.0	102.0	70	130				
Surr: Trifluorotoluene	24	1.0	25	0.0	96.0	70	130				

Associated Samples: **B21121961-001F, B21121961-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: PE 1_211228A: 12 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 17:23 **Prep Date:**
Lab ID: B21121841-001DMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	174	20	170	0.0	103.0	78	122	168	3.6	20.0	
Total Purgeable Hydrocarbons	210	20	200	0.0	105.0	70	130	203	3.5	20.0	
Surr: Trifluorotoluene	24	1.0	25	0.0	96.0	70	130	0.0			

Associated Samples: **B21121961-001F, B21121961-002A**

Run ID: Run Order: GCFID-HP5-B_211228B: 5 **SampType:** Method Blank **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/29/2021 11:57 **Prep Date:** 12/27/2021 14:11
Lab ID: MB-162502 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.20	0.0020	0.20		100.0	56	125				
Surr: n-Triacontane	0.10	0.0020	0.10		105.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP4-B_220102A: 12 **SampType:** Method Blank **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 09:42 **Prep Date:** 12/27/2021 14:11
Lab ID: MB-162502 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons (SGT)	ND	0.15									
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		91.0	56	125				
Surr: n-Triacontane (SGT)	0.11	0.0020	0.10		107.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 4 **SampType:** Laboratory Control Sample **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/29/2021 11:14 **Prep Date:** 12/27/2021 14:11
Lab ID: LCS-162502 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	13	0.30	15		84.0	36	132				
Total Extractable Hydrocarbons	14	0.30	15		90.0	60	132				
Surr: o-Terphenyl	0.19	0.0020	0.20		97.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 30 **SampType:** Laboratory Control Sample **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/30/2021 14:55 **Prep Date:** 12/27/2021 14:11
Lab ID: LCS-162502-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0		99.0	60	140				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_211228B: 30 **SampType:** Laboratory Control Sample **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/30/2021 14:55 **Prep Date:** 12/27/2021 14:11
Lab ID: LCS-162502-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: n-Triacontane	0.11	0.0020	0.10		108.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 08:57 **Prep Date:** 12/27/2021 14:11
Lab ID: LCS-162502 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	15		75.0	36	132				
Total Extractable Hydrocarbons (SGT)	12	0.30	15		80.0	60	132				
Surr: o-Terphenyl (SGT)	0.17	0.0020	0.20		84.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 21 **SampType:** Laboratory Control Sample **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 19:11 **Prep Date:** 12/27/2021 14:11
Lab ID: LCS-162502-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.6	0.30	5.0		93.0	41	113				
Surr: n-Triacontane (SGT)	0.11	0.0020	0.10		111.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_211228B: 13 **SampType:** Sample Matrix Spike **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/29/2021 19:47 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	14	0.060	84.0	36	132				
Total Extractable Hydrocarbons	13	0.30	14	0.30	89.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.19	0.0	95.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 14 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/29/2021 20:30 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMSD **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	14	0.060	84.0	36	132	12	0.5	20.0	
Total Extractable Hydrocarbons	14	0.30	14	0.30	92.0	60	132	13	3.5	20.0	
Surr: o-Terphenyl	0.16	0.0020	0.19	0.0	84.0	56	125	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 31 **SampType:** Sample Matrix Spike **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/30/2021 15:37 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	4.8	0.22	100.0	41	113				
Surr: n-Triacontane	0.10	0.0020	0.096	0.0	107.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_211228B: 32 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 12/30/2021 16:20 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMSD-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.9	0.30	4.8	0.22	97.0	41	113	5.0	2.6	20.0	
Surr: n-Triacontane	0.10	0.0020	0.096	0.0	105.0	50	150	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 16 **SampType:** Sample Matrix Spike **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 14:40 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	13	0.30	14	0.0	88.0	36	132				
Total Extractable Hydrocarbons (SGT)	13	0.30	14	0.0	93.0	60	132				
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.19	0.0	85.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 17 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 15:25 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMSD **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	13	0.30	14	0.0	93.0	36	132	13	6.3	20.0	
Total Extractable Hydrocarbons (SGT)	14	0.30	14	0.0	100.0	60	132	13	6.3	20.0	
Surr: o-Terphenyl (SGT)	0.20	0.0020	0.19	0.0	103.0	56	125	0.0			

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP4-B_220102A: 22 **SampType:** Sample Matrix Spike **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 19:56 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.3	0.30	4.8	0.0	89.0	41	113				
Surr: n-Triacontane (SGT)	0.094	0.0020	0.096	0.0	98.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 23 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162502
Method: SW8015C **Analysis Date:** 01/03/2022 21:26 **Prep Date:** 12/27/2021 18:24
Lab ID: B21121981-001DMSD-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.5	0.30	4.8	0.0	93.0	41	113	4.3	4.4	20.0	
Surr: n-Triacontane (SGT)	0.11	0.0020	0.096	0.0	110.0	50	150	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 5 **SampType:** Method Blank **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 15:52 **Prep Date:** 01/27/2022 12:44
Lab ID: MB-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.18	0.0020	0.20		91.0	56	125				
Surr: n-Triacontane	0.095	0.0020	0.10		95.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220131A: 5 **SampType:** Method Blank **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/31/2022 16:32 **Prep Date:** 01/27/2022 12:44
Lab ID: MB-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons (SGT)	ND	0.15									
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		89.0	56	125				
Surr: n-Triacontane (SGT)	0.094	0.0020	0.10		94.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 14:27 **Prep Date:** 01/27/2022 12:44
Lab ID: LCS-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	15		78.0	36	132				
Total Extractable Hydrocarbons	12	0.30	15		83.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 15:10 **Prep Date:** 01/27/2022 12:44
Lab ID: LCSD-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	15		81.0	36	132	12	3.7	20.0	
Total Extractable Hydrocarbons	13	0.30	15		86.0	60	132	12	3.6	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220128A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 15:10 **Prep Date:** 01/27/2022 12:44
Lab ID: LCSD-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	0.19	0.0020	0.20		95.0	56	125	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 20 **SampType:** Laboratory Control Sample **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/29/2022 08:15 **Prep Date:** 01/27/2022 12:44
Lab ID: LCS-163307-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		92.0	41	113				
Surr: n-Triacontane	0.095	0.0020	0.10		95.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 21 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/29/2022 09:40 **Prep Date:** 01/27/2022 12:44
Lab ID: LCSD-163307-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		102.0	41	113	4.6	9.5	20.0	
Surr: n-Triacontane	0.10	0.0020	0.10		101.0	50	150	0.0			

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220131A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/31/2022 15:06 **Prep Date:** 01/27/2022 12:44
Lab ID: LCS-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	12	0.30	15		80.0	36	132				
Total Extractable Hydrocarbons (SGT)	13	0.30	15		85.0	60	132				
Surr: o-Terphenyl (SGT)	0.19	0.0020	0.20		97.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/31/2022 15:49 **Prep Date:** 01/27/2022 12:44
Lab ID: LCSD-163307 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	15		76.0	36	132	12	5.1	20.0	
Total Extractable Hydrocarbons (SGT)	12	0.30	15		81.0	60	132	13	5.0	20.0	
Surr: o-Terphenyl (SGT)	0.19	0.0020	0.20		93.0	56	125	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 18 **SampType:** Laboratory Control Sample **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 02/01/2022 06:07 **Prep Date:** 01/27/2022 12:44
Lab ID: LCS-163307-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.5	0.30	5.0		91.0	41	113				
Surr: n-Triacontane (SGT)	0.086	0.0020	0.10		86.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220131A: 19 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 02/01/2022 07:33 **Prep Date:** 01/27/2022 12:44
Lab ID: LCSD-163307-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.6	0.30	5.0		92.0	41	113	4.5	1.9	20.0	
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10		88.0	50	150	0.0			

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 17:18 **Prep Date:** 01/27/2022 12:44
Lab ID: B22011592-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	11	0.30	14	0.091	77.0	36	132				
Total Extractable Hydrocarbons	12	0.30	14	0.15	83.0	60	132				
Surr: o-Terphenyl	0.17	0.0020	0.19	0.0	91.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 12 **SampType:** Sample Matrix Spike **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/28/2022 22:17 **Prep Date:** 01/27/2022 12:45
Lab ID: B22011592-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0	0.25	96.0	41	113				
Surr: n-Triacontane	0.098	0.0020	0.10	0.0	98.0	50	150				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220131A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 01/31/2022 17:58 **Prep Date:** 01/27/2022 12:44
Lab ID: B22011592-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	14	0.0	77.0	36	132				
Total Extractable Hydrocarbons (SGT)	12	0.30	14	0.0	82.0	60	132				
Surr: o-Terphenyl (SGT)	0.17	0.0020	0.19	0.0	92.0	56	125				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 17 **SampType:** Sample Matrix Spike **Batch ID:** 163307
Method: SW8015C **Analysis Date:** 02/01/2022 04:42 **Prep Date:** 01/27/2022 12:45
Lab ID: B22011592-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	5.3	0.30	5.0	0.0	105.0	41	113				
Surr: n-Triacontane (SGT)	0.10	0.0020	0.10	0.0	101.0	50	150				

Associated Samples: **B21121961-001D**

Run ID: Run Order: PE 1_211228A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 09:23 **Prep Date:**
Lab ID: CCV_1228PE104r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	172	20	168		103.0	80	120				
Total Purgeable Hydrocarbons	205	20	200		102.0	80	120				
Surr: Trifluorotoluene	25	1.0	25		98.0	80	120				

Associated Samples: **B21121961-001F, B21121961-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: PE 1_211228A: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372468
Method: SW8015C **Analysis Date:** 12/28/2021 20:49 **Prep Date:**
Lab ID: CCV_1228PE124r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	170	20	168		101.0	80	120				
Total Purgeable Hydrocarbons	203	20	200		101.0	80	120				
Surr: Trifluorotoluene	24	1.0	25		96.0	80	120				

Associated Samples: **B21121961-001F, B21121961-002A**

Run ID: Run Order: GCFID-HP5-B_211228B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372550
Method: SW8015C **Analysis Date:** 12/30/2021 00:49 **Prep Date:**
Lab ID: CCV_1228HP551r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.7	0.30	5.0		94.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 18 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372550
Method: SW8015C **Analysis Date:** 12/30/2021 01:32 **Prep Date:**
Lab ID: CCV_1228HP536r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		100.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		103.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		100.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_211228B: 28 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372550
Method: SW8015C **Analysis Date:** 12/30/2021 12:46 **Prep Date:**
Lab ID: CCV_1228HP567r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.7	0.30	5.0		94.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		102.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_211228B: 29 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372550
Method: SW8015C **Analysis Date:** 12/30/2021 13:29 **Prep Date:**
Lab ID: CCV_1228HP568r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		97.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		101.0	80	120				
Surr: o-Terphenyl	0.19	0.0020	0.20		97.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372714
Method: SW8015C **Analysis Date:** 01/02/2022 23:57 **Prep Date:**
Lab ID: CCV_0102HP417r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		92.0	80	120				
Surr: n-Triacontane	0.23	0.0020	0.20		117.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP4-B_220102A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372714
Method: SW8015C **Analysis Date:** 01/03/2022 00:42 **Prep Date:**
Lab ID: CCV_0102HP418r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	16	0.30	15		103.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		107.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		110.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372714
Method: SW8015C **Analysis Date:** 01/03/2022 11:41 **Prep Date:**
Lab ID: CCV_0102HP432r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.4	0.30	5.0		88.0	80	120				
Surr: n-Triacontane	0.23	0.0020	0.20		115.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP4-B_220102A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372714
Method: SW8015C **Analysis Date:** 01/03/2022 12:26 **Prep Date:**
Lab ID: CCV_0102HP433r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		99.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		103.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		105.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220128A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373923
Method: SW8015C **Analysis Date:** 01/28/2022 23:43 **Prep Date:**
Lab ID: CCV_0128HP519r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.8	0.30	5.0		96.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373923
Method: SW8015C **Analysis Date:** 01/29/2022 00:25 **Prep Date:**
Lab ID: CCV_0128HP520r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		92.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		96.0	80	120				
Surr: o-Terphenyl	0.19	0.0020	0.20		95.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220128A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373923
Method: SW8015C **Analysis Date:** 01/29/2022 11:52 **Prep Date:**
Lab ID: CCV_0128HP535r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.9	0.30	5.0		99.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220128A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373923
Method: SW8015C **Analysis Date:** 01/29/2022 12:34 **Prep Date:**
Lab ID: CCV_0128HP536r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		95.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		98.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		98.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373995
Method: SW8015C **Analysis Date:** 02/01/2022 00:25 **Prep Date:**
Lab ID: CCV_0131HP520r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0		99.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		112.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373995
Method: SW8015C **Analysis Date:** 02/01/2022 01:08 **Prep Date:**
Lab ID: CCV_0131HP521r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		100.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		103.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		102.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: GCFID-HP5-B_220131A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373995
Method: SW8015C **Analysis Date:** 02/01/2022 08:59 **Prep Date:**
Lab ID: CCV_0131HP532r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.9	0.30	5.0		99.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		111.0	80	120				

Associated Samples: **B21121961-001D**

Run ID: Run Order: GCFID-HP5-B_220131A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373995
Method: SW8015C **Analysis Date:** 02/01/2022 09:41 **Prep Date:**
Lab ID: CCV_0131HP533r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		99.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		103.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		102.0	80	120				

Associated Samples: **B21121961-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: FID-HEADSPACE_211228A: 4 **SampType:** Method Blank **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 10:48 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	ND	0.0010			0.0						

Associated Samples: **B21121961-001I, B21121961-005A**

Run ID: Run Order: FID-HEADSPACE_211228A: 2 **SampType:** Laboratory Control Sample **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 09:09 **Prep Date:**
Lab ID: LCS **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	96	2.0	100		96.0	85	115				

Associated Samples: **B21121961-001I, B21121961-005A**

Run ID: Run Order: FID-HEADSPACE_211228A: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 10:40 **Prep Date:**
Lab ID: LCSD **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	95	2.0	100		95.0	85	115	96	0.6	20.0	

Associated Samples: **B21121961-001I, B21121961-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: FID-HEADSPACE_211228A: 8 **SampType:** Sample Duplicate **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 11:28 **Prep Date:**
Lab ID: B21121959-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	2.8	0.15			0.0			2.9	0.4	20.0	

Associated Samples: **B21121961-001I, B21121961-005A**

Run ID: Run Order: FID-HEADSPACE_211228A: 15 **SampType:** Sample Duplicate **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 12:42 **Prep Date:**
Lab ID: B21121981-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	ND	0.0020			0.0			0.0		20.0	

Associated Samples: **B21121961-001I, B21121961-005A**

Run ID: Run Order: FID-HEADSPACE_211228A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 09:04 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115				

Associated Samples: **B21121961-001I, B21121961-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: FID-HEADSPACE_211228A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372437
Method: SW8015M **Analysis Date:** 12/28/2021 13:20 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115				

Associated Samples: **B21121961-001I, B21121961-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5975.I_220104A: 4 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 14:48 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.10									
2-Methylnaphthalene	ND	0.10									
Naphthalene	ND	0.10									

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5975.I_220104A: 5 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 15:21 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	64	2.0	100		64.0	53	106				
Surr: Nitrobenzene-d5	60	2.0	100		60.0	55	111				
Surr: Terphenyl-d14	112	2.0	100		112.0	58	132				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 12 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 19:56 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
1-Methylnaphthalene	ND	5.0									
2,4,5-Trichlorophenol	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 12 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 19:56 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	ND	5.0									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	10									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	5.0									
2-Chlorophenol	ND	5.0									
2-Methylnaphthalene	ND	5.0									
2-Nitrophenol	ND	5.0									
3,3´-Dichlorobenzidine	ND	10									
4,6-Dinitro-2-methylphenol	ND	10									
4-Bromophenyl phenyl ether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenol	ND	5.0									
4-Chlorophenyl phenyl ether	ND	5.0									
4-Nitrophenol	ND	10									
Acenaphthene	ND	5.0									
Acenaphthylene	ND	5.0									
Anthracene	ND	5.0									
Azobenzene	ND	5.0									
Benzidine	ND	10									
Benzo(a)anthracene	ND	5.0									
Benzo(a)pyrene	ND	5.0									
Benzo(b)fluoranthene	ND	5.0									
Benzo(g,h,i)perylene	ND	5.0									
Benzo(k)fluoranthene	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 12 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 19:56 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(-2-chloroethoxy)Methane	ND	5.0									
bis(-2-chloroethyl)Ether	ND	5.0									
bis(2-chloroisopropyl)Ether	ND	5.0									
bis(2-ethylhexyl)Phthalate	ND	5.0									
Butylbenzylphthalate	ND	5.0									
Chrysene	ND	5.0									
Dibenzo(a,h)anthracene	ND	5.0									
Diethyl phthalate	ND	5.0									
Dimethyl phthalate	ND	5.0									
Di-n-butyl phthalate	ND	5.0									
Di-n-octyl phthalate	ND	5.0									
Fluoranthene	ND	5.0									
Fluorene	ND	5.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Indeno(1,2,3-cd)pyrene	ND	5.0									
Isophorone	ND	5.0									
m+p-Cresols	ND	5.0									
Naphthalene	ND	5.0									
Nitrobenzene	ND	5.0									
n-Nitrosodimethylamine	ND	5.0									
n-Nitroso-di-n-propylamine	ND	5.0									
n-Nitrosodiphenylamine	ND	10									
o-Cresol	ND	5.0									
Pentachlorophenol	ND	10									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 12 **SampType:** Method Blank **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 19:56 **Prep Date:** 12/27/2021 09:03
Lab ID: MB-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenanthrene	ND	5.0									
Phenol	ND	5.0									
Pyrene	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	174	5.0	200		87.0	43	140				
Surr: 2-Fluorobiphenyl	64	5.0	100		64.0	44	119				
Surr: 2-Fluorophenol	89	5.0	200		45.0	19	119				
Surr: Nitrobenzene-d5	70	5.0	100		70.0	44	120				
Surr: Phenol-d5	80	5.0	200		40.0	10	65				
Surr: Terphenyl-d14	98	5.0	100		98.0	50	134				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5975.I_220104A: 6 **SampType:** Laboratory Control Sample **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 15:53 **Prep Date:** 12/27/2021 12:20
Lab ID: LLCS-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.9	0.10	5.0		78.0	41	115				
2-Methylnaphthalene	3.7	0.10	5.0		73.0	39	114				
Naphthalene	3.1	0.10	5.0		62.0	43	114				
Surr: 2-Fluorobiphenyl	3.8	0.10	5.0		76.0	53	106				
Surr: Nitrobenzene-d5	3.5	0.10	5.0		71.0	55	111				
Surr: Terphenyl-d14	5.4	0.10	5.0		108.0	58	132				

Associated Samples: **B21121961-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5975.I_220104A: 7 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 16:26 **Prep Date:** 12/27/2021 12:20
Lab ID: LLCSD-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.1	0.10	5.0		63.0	41	115	3.9	21.0	40.0	
2-Methylnaphthalene	3.0	0.10	5.0		60.0	39	114	3.7	19.0	40.0	
Naphthalene	2.7	0.10	5.0		54.0	43	114	3.1	13.0	40.0	
Surr: 2-Fluorobiphenyl	3.8	0.10	5.0		75.0	53	106	0.0	0.0		
Surr: Nitrobenzene-d5	2.8	0.10	5.0		56.0	55	111	0.0	0.0		
Surr: Terphenyl-d14	5.1	0.10	5.0		102.0	58	132	0.0	0.0		

Associated Samples: **B21121961-001C**

- Insufficient sample was submitted to perform a Matrix Spike/Duplicate, so a Laboratory Control Sample Duplicate is included in the reporting package to assess precision.

Run ID: Run Order: SV5973N.I_220104A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 20:28 **Prep Date:** 12/27/2021 09:03
Lab ID: LCS-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	69	10	100		69.0	29	116				
1,2-Dichlorobenzene	61	10	100		61.0	32	111				
1,3-Dichlorobenzene	59	10	100		59.0	28	110				
1,4-Dichlorobenzene	60	10	100		60.0	29	112				
1-Methylnaphthalene	78	10	100		78.0	41	119				
2,4,5-Trichlorophenol	83	10	100		83.0	53	123				
2,4,6-Trichlorophenol	87	10	100		87.0	50	125				
2,4-Dichlorophenol	77	10	100		77.0	47	121				
2,4-Dimethylphenol	61	10	100		61.0	31	124				
2,4-Dinitrophenol	69	10	100		69.0	23	142				
2,4-Dinitrotoluene	90	10	100		90.0	57	128				
2,6-Dinitrotoluene	94	10	100		94.0	50	118				
2-Chloronaphthalene	84	10	100		84.0	40	116				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 20:28 **Prep Date:** 12/27/2021 09:03
Lab ID: LCS-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	66	10	100		66.0	38	117				
2-Methylnaphthalene	83	10	100		83.0	40	121				
2-Nitrophenol	74	10	100		74.0	47	123				
3,3´-Dichlorobenzidine	75	10	100		75.0	27	129				
4,6-Dinitro-2-methylphenol	74	10	100		74.0	44	137				
4-Bromophenyl phenyl ether	96	10	100		96.0	55	124				
4-Chloro-3-methylphenol	95	10	100		95.0	52	119				
4-Chlorophenol	74	10	100		74.0	41	81				
4-Chlorophenyl phenyl ether	97	10	100		97.0	53	121				
4-Nitrophenol	41	10	100		41.0	15	36				S
Acenaphthene	101	10	100		101.0	47	122				
Acenaphthylene	91	10	100		91.0	41	130				
Anthracene	98	10	100		98.0	57	123				
Azobenzene	92	10	100		92.0	61	116				
Benzidine	14	10	100		14.0	10	100				
Benzo(a)anthracene	100	10	100		100.0	58	125				
Benzo(a)pyrene	96	10	100		96.0	54	128				
Benzo(b)fluoranthene	94	10	100		94.0	53	131				
Benzo(g,h,i)perylene	100	10	100		100.0	50	134				
Benzo(k)fluoranthene	91	10	100		91.0	57	129				
bis(-2-chloroethoxy)Methane	85	10	100		85.0	48	120				
bis(-2-chloroethyl)Ether	82	10	100		82.0	43	118				
bis(2-chloroisopropyl)Ether	61	10	100		61.0	37	130				
bis(2-ethylhexyl)Phthalate	102	10	100		102.0	55	135				
Butylbenzylphthalate	100	10	100		100.0	53	134				
Chrysene	93	10	100		93.0	59	123				
Dibenzo(a,h)anthracene	99	10	100		99.0	51	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 20:28 **Prep Date:** 12/27/2021 09:03
Lab ID: LCS-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	108	10	100		108.0	56	125				
Dimethyl phthalate	103	10	100		103.0	45	127				
Di-n-butyl phthalate	104	10	100		104.0	59	127				
Di-n-octyl phthalate	98	10	100		98.0	51	140				
Fluoranthene	93	10	100		93.0	57	128				
Fluorene	100	10	100		100.0	52	124				
Hexachlorobenzene	91	10	100		91.0	53	125				
Hexachlorobutadiene	59	10	100		59.0	22	124				
Hexachlorocyclopentadiene	65	10	100		65.0	39	91				
Hexachloroethane	55	10	100		55.0	21	115				
Indeno(1,2,3-cd)pyrene	98	10	100		98.0	52	134				
Isophorone	81	10	100		81.0	42	124				
m+p-Cresols	71	10	100		71.0	29	110				
Naphthalene	77	10	100		77.0	40	121				
Nitrobenzene	84	10	100		84.0	45	121				
n-Nitrosodimethylamine	46	10	100		46.0	20	45				S
n-Nitroso-di-n-propylamine	89	10	100		89.0	49	119				
n-Nitrosodiphenylamine	92	10	100		92.0	51	123				
o-Cresol	70	10	100		70.0	30	117				
Pentachlorophenol	94	10	100		94.0	35	138				
Phenanthrene	98	10	100		98.0	59	120				
Phenol	48	10	100		48.0	37	75				
Pyrene	90	10	100		90.0	57	126				
Pyridine	32	10	100		32.0	16	45				
Surr: 2,4,6-Tribromophenol	188	10	200		94.0	43	140				
Surr: 2-Fluorobiphenyl	83	10	100		83.0	44	119				
Surr: 2-Fluorophenol	74	10	200		37.0	19	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 20:28 **Prep Date:** 12/27/2021 09:03
Lab ID: LCS-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	77	10	100		77.0	44	120				
Surr: Phenol-d5	83	10	200		41.0	10	65				
Surr: Terphenyl-d14	95	10	100		95.0	50	134				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 21:01 **Prep Date:** 12/27/2021 12:20
Lab ID: LCSD-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	69	10	100		69.0	29	116	69	0.2	20.0	
1,2-Dichlorobenzene	64	10	100		64.0	32	111	61	4.6	20.0	
1,3-Dichlorobenzene	60	10	100		60.0	28	110	59	1.8	20.0	
1,4-Dichlorobenzene	63	10	100		63.0	29	112	60	4.8	20.0	
1-Methylnaphthalene	78	10	100		78.0	41	119	78	0.2	20.0	
2,4,5-Trichlorophenol	88	10	100		88.0	53	123	83	6.0	20.0	
2,4,6-Trichlorophenol	91	10	100		91.0	50	125	87	3.6	20.0	
2,4-Dichlorophenol	79	10	100		79.0	47	121	77	3.7	20.0	
2,4-Dimethylphenol	66	10	100		66.0	31	124	61	8.1	20.0	
2,4-Dinitrophenol	76	10	100		76.0	23	142	69	9.4	20.0	
2,4-Dinitrotoluene	98	10	100		98.0	57	128	90	9.2	20.0	
2,6-Dinitrotoluene	95	10	100		95.0	50	118	94	1.5	20.0	
2-Chloronaphthalene	84	10	100		84.0	40	116	84	0.5	20.0	
2-Chlorophenol	70	10	100		70.0	38	117	66	5.4	20.0	
2-Methylnaphthalene	83	10	100		83.0	40	121	83	0.5	20.0	
2-Nitrophenol	78	10	100		78.0	47	123	74	4.6	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 21:01 **Prep Date:** 12/27/2021 12:20
Lab ID: LCSD-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	83	10	100		83.0	27	129	75	9.3	20.0	
4,6-Dinitro-2-methylphenol	74	10	100		74.0	44	137	74	0.5	20.0	
4-Bromophenyl phenyl ether	89	10	100		89.0	55	124	96	7.3	20.0	
4-Chloro-3-methylphenol	94	10	100		94.0	52	119	95	1.1	20.0	
4-Chlorophenol	72	10	100		72.0	41	81	74	3.0	20.0	
4-Chlorophenyl phenyl ether	95	10	100		95.0	53	121	97	2.5	20.0	
4-Nitrophenol	39	10	100		39.0	15	36	41	4.6	20.0	S
Acenaphthene	96	10	100		96.0	47	122	101	5.2	20.0	
Acenaphthylene	91	10	100		91.0	41	130	91	0.7	20.0	
Anthracene	96	10	100		96.0	57	123	98	2.3	20.0	
Azobenzene	90	10	100		90.0	61	116	92	2.0	20.0	
Benzidine	12	10	100		12.0	10	100	14	14.0	20.0	
Benzo(a)anthracene	105	10	100		105.0	58	125	100	4.9	20.0	
Benzo(a)pyrene	101	10	100		101.0	54	128	96	4.4	20.0	
Benzo(b)fluoranthene	99	10	100		99.0	53	131	94	4.4	20.0	
Benzo(g,h,i)perylene	102	10	100		102.0	50	134	100	1.5	20.0	
Benzo(k)fluoranthene	98	10	100		98.0	57	129	91	7.3	20.0	
bis(-2-chloroethoxy)Methane	92	10	100		92.0	48	120	85	7.0	20.0	
bis(-2-chloroethyl)Ether	84	10	100		84.0	43	118	82	2.2	20.0	
bis(2-chloroisopropyl)Ether	66	10	100		66.0	37	130	61	6.6	20.0	
bis(2-ethylhexyl)Phthalate	108	10	100		108.0	55	135	102	5.9	20.0	
Butylbenzylphthalate	103	10	100		103.0	53	134	100	3.0	20.0	
Chrysene	99	10	100		99.0	59	123	93	6.0	20.0	
Dibenzo(a,h)anthracene	105	10	100		105.0	51	134	99	6.3	20.0	
Diethyl phthalate	109	10	100		109.0	56	125	108	0.9	20.0	
Dimethyl phthalate	105	10	100		105.0	45	127	103	2.6	20.0	
Di-n-butyl phthalate	105	10	100		105.0	59	127	104	0.5	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 21:01 **Prep Date:** 12/27/2021 12:20
Lab ID: LCSD-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	103	10	100		103.0	51	140	98	5.1	20.0	
Fluoranthene	92	10	100		92.0	57	128	93	1.5	20.0	
Fluorene	97	10	100		97.0	52	124	100	2.7	20.0	
Hexachlorobenzene	88	10	100		88.0	53	125	91	2.9	20.0	
Hexachlorobutadiene	60	10	100		60.0	22	124	59	2.7	20.0	
Hexachlorocyclopentadiene	72	10	100		72.0	39	91	65	11.0	20.0	
Hexachloroethane	60	10	100		60.0	21	115	55	8.4	20.0	
Indeno(1,2,3-cd)pyrene	103	10	100		103.0	52	134	98	5.4	20.0	
Isophorone	84	10	100		84.0	42	124	81	3.1	20.0	
m+p-Cresols	76	10	100		76.0	29	110	71	7.4	20.0	
Naphthalene	79	10	100		79.0	40	121	77	2.2	20.0	
Nitrobenzene	86	10	100		86.0	45	121	84	2.1	20.0	
n-Nitrosodimethylamine	44	10	100		44.0	20	45	46	3.9	20.0	
n-Nitroso-di-n-propylamine	95	10	100		95.0	49	119	89	6.1	20.0	
n-Nitrosodiphenylamine	91	10	100		91.0	51	123	92	1.7	20.0	
o-Cresol	74	10	100		74.0	30	117	70	5.0	20.0	
Pentachlorophenol	94	10	100		94.0	35	138	94	0.4	20.0	
Phenanthrene	97	10	100		97.0	59	120	98	1.1	20.0	
Phenol	49	10	100		49.0	37	75	48	1.1	20.0	
Pyrene	90	10	100		90.0	57	126	90	0.1	20.0	
Pyridine	33	10	100		33.0	16	45	32	3.4	20.0	
Surr: 2,4,6-Tribromophenol	193	10	200		96.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	76	10	100		76.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	76	10	200		38.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	78	10	100		78.0	44	120	0.0	0.0		
Surr: Phenol-d5	84	10	200		42.0	10	65	0.0	0.0		

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 21:01 **Prep Date:** 12/27/2021 12:20
Lab ID: LCSD-162475 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	94	10	100		94.0	50	134	0.0	0.0		

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5975.I_220104A: 10 **SampType:** Sample Matrix Spike **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 18:03 **Prep Date:** 12/27/2021 12:23
Lab ID: B21121957-001ALMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.1	0.10	4.8	0.0	66.0	41	115				
2-Methylnaphthalene	2.8	0.10	4.8	0.0	58.0	39	114				
Naphthalene	2.6	0.10	4.8	0.0	54.0	43	114				
Surr: 2-Fluorobiphenyl	3.5	0.10	4.8	0.0	73.0	53	106				
Surr: Nitrobenzene-d5	2.7	0.10	4.8	0.0	56.0	55	111				
Surr: Terphenyl-d14	4.9	0.10	4.8	0.0	102.0	58	132				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 19 **SampType:** Sample Matrix Spike **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 23:43 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	58	10	100	0.0	58.0	29	116				
1,2-Dichlorobenzene	48	10	100	0.0	48.0	32	111				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 19 **SampType:** Sample Matrix Spike **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 23:43 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	46	10	100	0.0	46.0	28	110				
1,4-Dichlorobenzene	44	10	100	0.0	44.0	29	112				
1-Methylnaphthalene	151	10	100	66	85.0	41	119				
2,4,5-Trichlorophenol	91	10	100	0.0	91.0	53	123				
2,4,6-Trichlorophenol	92	10	100	0.0	92.0	50	125				
2,4-Dichlorophenol	76	10	100	0.0	76.0	47	121				
2,4-Dimethylphenol	100	10	100	43	58.0	31	124				
2,4-Dinitrophenol	103	20	100	0.0	103.0	23	142				
2,4-Dinitrotoluene	99	10	100	0.0	99.0	57	128				
2,6-Dinitrotoluene	104	10	100	0.0	104.0	50	118				
2-Chloronaphthalene	89	10	100	0.0	89.0	40	116				
2-Chlorophenol	73	10	100	0.0	73.0	38	117				
2-Methylnaphthalene	181	10	100	95	86.0	40	121				
2-Nitrophenol	98	10	100	0.0	98.0	47	123				
3,3´-Dichlorobenzidine	32	20	100	0.0	32.0	27	129				
4,6-Dinitro-2-methylphenol	67	20	100	0.0	67.0	44	137				
4-Bromophenyl phenyl ether	85	10	100	0.0	85.0	55	124				
4-Chloro-3-methylphenol	90	10	100	0.0	90.0	52	119				
4-Chlorophenol	89	10	100	0.0	89.0	41	81				S
4-Chlorophenyl phenyl ether	99	10	100	0.0	99.0	53	121				
4-Nitrophenol	40	20	100	0.0	40.0	15	36				S
Acenaphthene	92	10	100	0.0	92.0	47	122				
Acenaphthylene	75	10	100	0.0	75.0	41	130				
Anthracene	85	10	100	0.0	85.0	57	123				
Azobenzene	77	10	100	0.0	77.0	61	116				
Benzidine	ND	20	100	0.0	0.0	10	100				S
Benzo(a)anthracene	95	10	100	3.9	91.0	58	125				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 19 **SampType:** Sample Matrix Spike **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 23:43 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzo(a)pyrene	84	10	100	0.0	84.0	54	128				
Benzo(b)fluoranthene	87	10	100	0.0	87.0	53	131				
Benzo(g,h,i)perylene	91	10	100	0.0	91.0	50	134				
Benzo(k)fluoranthene	80	10	100	0.0	80.0	57	129				
bis(-2-chloroethoxy)Methane	74	10	100	0.0	74.0	48	120				
bis(-2-chloroethyl)Ether	82	10	100	0.0	82.0	43	118				
bis(2-chloroisopropyl)Ether	63	10	100	0.0	63.0	37	130				
bis(2-ethylhexyl)Phthalate	100	10	100	0.0	100.0	55	135				
Butylbenzylphthalate	107	10	100	0.0	107.0	53	134				
Chrysene	91	10	100	7.6	83.0	59	123				
Dibenzo(a,h)anthracene	97	10	100	0.0	97.0	51	134				
Diethyl phthalate	99	10	100	0.0	99.0	56	125				
Dimethyl phthalate	103	10	100	0.0	103.0	45	127				
Di-n-butyl phthalate	110	10	100	0.0	110.0	59	127				
Di-n-octyl phthalate	96	10	100	0.0	96.0	51	140				
Fluoranthene	84	10	100	0.0	84.0	57	128				
Fluorene	96	10	100	7.7	88.0	52	124				
Hexachlorobenzene	76	10	100	0.0	76.0	53	125				
Hexachlorobutadiene	51	10	100	0.0	51.0	22	124				
Hexachlorocyclopentadiene	59	10	100	0.0	59.0	39	91				
Hexachloroethane	107	10	100	0.0	107.0	21	115				
Indeno(1,2,3-cd)pyrene	92	10	100	0.0	92.0	52	134				
Isophorone	79	10	100	0.0	79.0	42	124				
Naphthalene	214	10	100	145	69.0	40	121				
Nitrobenzene	97	10	100	0.0	97.0	45	121				
n-Nitrosodimethylamine	59	10	100	0.0	59.0	20	45				S
n-Nitroso-di-n-propylamine	85	10	100	0.0	85.0	49	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 19 **SampType:** Sample Matrix Spike **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/04/2022 23:43 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
n-Nitrosodiphenylamine	81	20	100	0.0	81.0	51	123				
Pentachlorophenol	95	20	100	0.0	95.0	35	138				
Phenanthrene	92	10	100	12	80.0	59	120				
Pyrene	87	10	100	5.2	82.0	57	126				
Pyridine	45	10	100	8.6	37.0	16	45				
Surr: 2,4,6-Tribromophenol	300	10	400	0.0	75.0	43	140				
Surr: 2-Fluorobiphenyl	150	10	200	0.0	75.0	44	119				
Surr: 2-Fluorophenol	163	10	400	0.0	41.0	19	119				
Surr: Nitrobenzene-d5	184	10	200	0.0	92.0	44	120				
Surr: Phenol-d5	184	10	400	0.0	46.0	10	65				
Surr: Terphenyl-d14	163	10	200	0.0	82.0	50	134				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/05/2022 00:15 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	55	10	100	0.0	55.0	29	116	58	4.8	20.0	
1,2-Dichlorobenzene	52	10	100	0.0	52.0	32	111	48	8.3	20.0	
1,3-Dichlorobenzene	50	10	100	0.0	50.0	28	110	46	10.0	20.0	
1,4-Dichlorobenzene	50	10	100	0.0	50.0	29	112	44	13.0	20.0	
1-Methylnaphthalene	144	10	100	66	79.0	41	119	151	4.3	20.0	
2,4,5-Trichlorophenol	90	10	100	0.0	90.0	53	123	91	0.4	20.0	
2,4,6-Trichlorophenol	89	10	100	0.0	89.0	50	125	92	2.8	20.0	
2,4-Dichlorophenol	77	10	100	0.0	77.0	47	121	76	1.3	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/05/2022 00:15 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4-Dimethylphenol	87	10	100	43	44.0	31	124	100	15.0	20.0	
2,4-Dinitrophenol	100	20	100	0.0	100.0	23	142	103	2.3	20.0	
2,4-Dinitrotoluene	103	10	100	0.0	103.0	57	128	99	3.7	20.0	
2,6-Dinitrotoluene	119	10	100	0.0	119.0	50	118	104	14.0	20.0	S
2-Chloronaphthalene	81	10	100	0.0	81.0	40	116	89	9.4	20.0	
2-Chlorophenol	72	10	100	0.0	72.0	38	117	73	1.6	20.0	
2-Methylnaphthalene	174	10	100	95	79.0	40	121	181	3.8	20.0	
2-Nitrophenol	82	10	100	0.0	82.0	47	123	98	17.0	20.0	
3,3´-Dichlorobenzidine	30	20	100	0.0	30.0	27	129	32	5.6	20.0	
4,6-Dinitro-2-methylphenol	71	20	100	0.0	71.0	44	137	67	5.8	20.0	
4-Bromophenyl phenyl ether	76	10	100	0.0	76.0	55	124	85	11.0	20.0	
4-Chloro-3-methylphenol	87	10	100	0.0	87.0	52	119	90	3.8	20.0	
4-Chlorophenol	90	10	100	0.0	90.0	41	81	89	1.5	20.0	S
4-Chlorophenyl phenyl ether	82	10	100	0.0	82.0	53	121	99	20.0	20.0	
4-Nitrophenol	49	20	100	0.0	49.0	15	36	40	20.0	20.0	S
Acenaphthene	84	10	100	0.0	84.0	47	122	92	9.0	20.0	
Acenaphthylene	71	10	100	0.0	71.0	41	130	75	5.5	20.0	
Anthracene	76	10	100	0.0	76.0	57	123	85	11.0	20.0	
Azobenzene	72	10	100	0.0	72.0	61	116	77	6.2	20.0	
Benzidine	ND	20	100	0.0	0.0	10	100	0.0		20.0	S
Benzo(a)anthracene	83	10	100	3.9	79.0	58	125	95	14.0	20.0	
Benzo(a)pyrene	72	10	100	0.0	72.0	54	128	84	15.0	20.0	
Benzo(b)fluoranthene	69	10	100	0.0	69.0	53	131	87	24.0	20.0	R
Benzo(g,h,i)perylene	77	10	100	0.0	77.0	50	134	91	16.0	20.0	
Benzo(k)fluoranthene	65	10	100	0.0	65.0	57	129	80	21.0	20.0	R
bis(-2-chloroethoxy)Methane	85	10	100	0.0	85.0	48	120	74	14.0	20.0	
bis(-2-chloroethyl)Ether	81	10	100	0.0	81.0	43	118	82	1.0	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/05/2022 00:15 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(2-chloroisopropyl)Ether	66	10	100	0.0	66.0	37	130	63	4.3	20.0	
bis(2-ethylhexyl)Phthalate	81	10	100	0.0	81.0	55	135	100	21.0	20.0	R
Butylbenzylphthalate	90	10	100	0.0	90.0	53	134	107	17.0	20.0	
Chrysene	83	10	100	7.6	75.0	59	123	91	9.2	20.0	
Dibenzo(a,h)anthracene	84	10	100	0.0	84.0	51	134	97	14.0	20.0	
Diethyl phthalate	100	10	100	0.0	100.0	56	125	99	1.0	20.0	
Dimethyl phthalate	104	10	100	0.0	104.0	45	127	103	0.6	20.0	
Di-n-butyl phthalate	101	10	100	0.0	101.0	59	127	110	8.4	20.0	
Di-n-octyl phthalate	75	10	100	0.0	75.0	51	140	96	25.0	20.0	R
Fluoranthene	76	10	100	0.0	76.0	57	128	84	10.0	20.0	
Fluorene	89	10	100	7.7	81.0	52	124	96	7.6	20.0	
Hexachlorobenzene	69	10	100	0.0	69.0	53	125	76	10.0	20.0	
Hexachlorobutadiene	49	10	100	0.0	49.0	22	124	51	4.4	20.0	
Hexachlorocyclopentadiene	38	10	100	0.0	38.0	39	91	59	44.0	20.0	SR
Hexachloroethane	102	10	100	0.0	102.0	21	115	107	4.2	20.0	
Indeno(1,2,3-cd)pyrene	78	10	100	0.0	78.0	52	134	92	16.0	20.0	
Isophorone	82	10	100	0.0	82.0	42	124	79	3.1	20.0	
Naphthalene	215	10	100	145	71.0	40	121	214	0.6	20.0	
Nitrobenzene	98	10	100	0.0	98.0	45	121	97	0.9	20.0	
n-Nitrosodimethylamine	61	10	100	0.0	61.0	20	45	59	4.0	20.0	S
n-Nitroso-di-n-propylamine	91	10	100	0.0	91.0	49	119	85	6.8	20.0	
n-Nitrosodiphenylamine	87	20	100	0.0	87.0	51	123	81	6.5	20.0	
Pentachlorophenol	93	20	100	0.0	93.0	35	138	95	1.8	20.0	
Phenanthrene	85	10	100	12	73.0	59	120	92	8.4	20.0	
Pyrene	80	10	100	5.2	74.0	57	126	87	9.0	20.0	
Pyridine	42	10	100	8.6	34.0	16	45	45	6.9	20.0	
Surr: 2,4,6-Tribromophenol	314	10	400	0.0	78.0	43	140	0.0	0.0		

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/05/2022 00:15 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	135	10	200	0.0	68.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	163	10	400	0.0	41.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	184	10	200	0.0	92.0	44	120	0.0	0.0		
Surr: Phenol-d5	182	10	400	0.0	46.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	174	10	200	0.0	87.0	50	134	0.0	0.0		

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220110B: 6 **SampType:** Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/11/2022 07:52 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
m+p-Cresols	442	100						445	0.6	40.0	
Naphthalene	211	100						229	8.2	40.0	
o-Cresol	371	100						362	2.5	40.0	
Phenol	953	100						1180	22.0	40.0	

Associated Samples: **B21121961-001C**

- Because the sample amount was significantly higher than the spike amount for these analytes, the MS and MSD spike samples for these analytes are calculated as Duplicate samples based on the spike amount added plus the original sample concentration.

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220110B: 8 **SampType:** Sample Duplicate **Batch ID:** 162475
Method: SW8270C **Analysis Date:** 01/11/2022 08:56 **Prep Date:** 12/27/2021 09:03
Lab ID: B21121877-001EMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
m+p-Cresols	433	100						445	2.7	40.0	
Naphthalene	222	100						229	3.0	40.0	
o-Cresol	384	100						362	5.7	40.0	
Phenol	974	100						1180	19.0	40.0	

Associated Samples: **B21121961-001C**

- Because the sample amount was significantly higher than the spike amount for these analytes, the MS and MSD spike samples for these analytes are calculated as Duplicate samples based on the spike amount added plus the original sample concentration.

Run ID: Run Order: SV5975.I_220104A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372716
Method: SW8270C **Analysis Date:** 01/04/2022 13:43 **Prep Date:**
Lab ID: 04-Jan-22_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.9	0.10	2.0		95.0	80	120				
2-Methylnaphthalene	1.8	0.10	2.0		89.0	80	120				
Naphthalene	1.7	0.10	2.0		84.0	80	120				
Surr: 2-Fluorobiphenyl	2.0	0.10	2.0		102.0	80	120				
Surr: Nitrobenzene-d5	1.8	0.10	2.0		91.0	80	120				
Surr: Terphenyl-d14	2.2	0.10	2.0		109.0	80	120				

Associated Samples: **B21121961-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5975.I_220104A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372716
Method: SW8270C **Analysis Date:** 01/05/2022 02:00 **Prep Date:**
Lab ID: 04-Jan-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.3	0.10	2.0		117.0	50	150				
2-Methylnaphthalene	2.1	0.10	2.0		104.0	50	150				
Naphthalene	2.0	0.10	2.0		100.0	50	150				
Surr: 2-Fluorobiphenyl	1.9	0.10	2.0		96.0	50	150				
Surr: Nitrobenzene-d5	1.7	0.10	2.0		85.0	50	150				
Surr: Terphenyl-d14	2.2	0.10	2.0		112.0	50	150				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/05/2022 02:57 **Prep Date:**
Lab ID: 04-Jan-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	82	10	75		109.0	50	150				
1,2-Dichlorobenzene	79	10	75		105.0	50	150				
1,3-Dichlorobenzene	83	10	75		111.0	50	150				
1,4-Dichlorobenzene	78	10	75		104.0	50	150				
1-Methylnaphthalene	77	10	75		102.0	50	150				
2,4,5-Trichlorophenol	102	10	75		136.0	50	150				
2,4,6-Trichlorophenol	100	10	75		134.0	50	150				
2,4-Dichlorophenol	98	10	75		131.0	50	150				
2,4-Dimethylphenol	80	10	75		107.0	50	150				
2,4-Dinitrophenol	85	10	75		113.0	50	150				
2,4-Dinitrotoluene	95	10	75		127.0	50	150				
2,6-Dinitrotoluene	91	10	75		121.0	50	150				
2-Chloronaphthalene	84	10	75		112.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/05/2022 02:57 **Prep Date:**
Lab ID: 04-Jan-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	92	10	75		123.0	50	150				
2-Methylnaphthalene	77	10	75		103.0	50	150				
2-Nitrophenol	94	10	75		126.0	50	150				
3,3´-Dichlorobenzidine	96	10	75		128.0	50	150				
4,6-Dinitro-2-methylphenol	81	10	75		108.0	50	150				
4-Bromophenyl phenyl ether	88	10	75		117.0	50	150				
4-Chloro-3-methylphenol	89	10	75		119.0	50	150				
4-Chlorophenol	96	10	75		129.0	50	150				
4-Chlorophenyl phenyl ether	93	10	75		124.0	50	150				
4-Nitrophenol	104	10	75		139.0	50	150				
Acenaphthene	78	10	75		104.0	50	150				
Acenaphthylene	88	10	75		118.0	50	150				
Anthracene	80	10	75		107.0	50	150				
Azobenzene	82	10	75		109.0	50	150				
Benzidine	66	10	75		88.0	50	150				
Benzo(a)anthracene	77	10	75		103.0	50	150				
Benzo(a)pyrene	79	10	75		106.0	50	150				
Benzo(b)fluoranthene	71	10	75		95.0	50	150				
Benzo(g,h,i)perylene	78	10	75		104.0	50	150				
Benzo(k)fluoranthene	74	10	75		99.0	50	150				
bis(-2-chloroethoxy)Methane	88	10	75		118.0	50	150				
bis(-2-chloroethyl)Ether	82	10	75		110.0	50	150				
bis(2-chloroisopropyl)Ether	83	10	75		110.0	50	150				
bis(2-ethylhexyl)Phthalate	103	10	75		138.0	50	150				
Butylbenzylphthalate	97	10	75		129.0	50	150				
Chrysene	74	10	75		99.0	50	150				
Dibenzo(a,h)anthracene	83	10	75		110.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/05/2022 02:57 **Prep Date:**
Lab ID: 04-Jan-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	102	10	75		135.0	50	150				
Dimethyl phthalate	93	10	75		125.0	50	150				
Di-n-butyl phthalate	101	10	75		135.0	50	150				
Di-n-octyl phthalate	90	10	75		120.0	50	150				
Fluoranthene	77	10	75		103.0	50	150				
Fluorene	84	10	75		112.0	50	150				
Hexachlorobenzene	81	10	75		108.0	50	150				
Hexachlorobutadiene	91	10	75		121.0	50	150				
Hexachlorocyclopentadiene	92	10	75		122.0	50	150				
Hexachloroethane	100	10	75		133.0	50	150				
Indeno(1,2,3-cd)pyrene	82	10	75		109.0	50	150				
Isophorone	86	10	75		114.0	50	150				
m+p-Cresols	89	10	75		119.0	50	150				
Naphthalene	82	10	75		109.0	50	150				
Nitrobenzene	105	10	75		140.0	50	150				
n-Nitrosodimethylamine	97	10	75		129.0	50	150				
n-Nitroso-di-n-propylamine	86	10	75		115.0	50	150				
n-Nitrosodiphenylamine	77	10	75		103.0	50	150				
o-Cresol	80	10	75		106.0	50	150				
Pentachlorophenol	100	10	75		133.0	50	150				
Phenanthrene	77	10	75		102.0	50	150				
Phenol	87	10	75		116.0	50	150				
Pyrene	80	10	75		107.0	50	150				
Pyridine	77	10	75		103.0	50	150				
Surr: 2,4,6-Tribromophenol	94	10	75		125.0	50	150				
Surr: 2-Fluorobiphenyl	80	10	75		106.0	50	150				
Surr: 2-Fluorophenol	84	10	75		112.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/05/2022 02:57 **Prep Date:**
Lab ID: 04-Jan-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	101	10	75		134.0	50	150				
Surr: Phenol-d5	82	10	75		109.0	50	150				
Surr: Terphenyl-d14	79	10	75		105.0	50	150				

Associated Samples: **B21121961-001C**

Run ID: Run Order: SV5973N.I_220104A: 9 **SampType:** Initial Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/04/2022 18:18 **Prep Date:**
Lab ID: 04-Jan-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	79	10	75		106.0	80	120				
1,2-Dichlorobenzene	80	10	75		106.0	80	120				
1,3-Dichlorobenzene	82	10	75		109.0	80	120				
1,4-Dichlorobenzene	81	10	75		108.0	80	120				
1-Methylnaphthalene	77	10	75		102.0	80	120				
2,4,5-Trichlorophenol	89	10	75		118.0	80	120				
2,4,6-Trichlorophenol	87	10	75		116.0	80	120				
2,4-Dichlorophenol	87	10	75		116.0	80	120				
2,4-Dimethylphenol	77	10	75		103.0	80	120				
2,4-Dinitrophenol	77	10	75		103.0	80	120				
2,4-Dinitrotoluene	83	10	75		110.0	80	120				
2,6-Dinitrotoluene	89	10	75		119.0	80	120				
2-Chloronaphthalene	83	10	75		111.0	80	120				
2-Chlorophenol	87	10	75		116.0	80	120				
2-Methylnaphthalene	80	10	75		107.0	80	120				
2-Nitrophenol	81	10	75		109.0	80	120				

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Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 9 **SampType:** Initial Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/04/2022 18:18 **Prep Date:**
Lab ID: 04-Jan-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	77	10	75		102.0	80	120				
4,6-Dinitro-2-methylphenol	68	10	75		91.0	80	120				
4-Bromophenyl phenyl ether	80	10	75		106.0	80	120				
4-Chloro-3-methylphenol	85	10	75		114.0	80	120				
4-Chlorophenol	86	10	75		115.0	80	120				
4-Chlorophenyl phenyl ether	86	10	75		114.0	80	120				
4-Nitrophenol	85	10	75		113.0	80	120				
Acenaphthene	88	10	75		117.0	80	120				
Acenaphthylene	84	10	75		112.0	80	120				
Anthracene	80	10	75		107.0	80	120				
Azobenzene	82	10	75		109.0	80	120				
Benzidine	68	10	75		90.0	80	120				
Benzo(a)anthracene	84	10	75		112.0	80	120				
Benzo(a)pyrene	81	10	75		108.0	80	120				
Benzo(b)fluoranthene	81	10	75		108.0	80	120				
Benzo(g,h,i)perylene	83	10	75		111.0	80	120				
Benzo(k)fluoranthene	80	10	75		106.0	80	120				
bis(-2-chloroethoxy)Methane	84	10	75		112.0	80	120				
bis(-2-chloroethyl)Ether	89	10	75		118.0	80	120				
bis(2-chloroisopropyl)Ether	70	10	75		93.0	80	120				
bis(2-ethylhexyl)Phthalate	89	10	75		118.0	80	120				
Butylbenzylphthalate	89	10	75		118.0	80	120				
Chrysene	81	10	75		108.0	80	120				
Dibenzo(a,h)anthracene	88	10	75		117.0	80	120				
Diethyl phthalate	89	10	75		119.0	80	120				
Dimethyl phthalate	91	10	75		122.0	80	120				S
Di-n-butyl phthalate	87	10	75		117.0	80	120				

Analytical QC Summary Report

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Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 9 **SampType:** Initial Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/04/2022 18:18 **Prep Date:**
Lab ID: 04-Jan-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	84	10	75		112.0	80	120				
Fluoranthene	77	10	75		103.0	80	120				
Fluorene	85	10	75		114.0	80	120				
Hexachlorobenzene	78	10	75		104.0	80	120				
Hexachlorobutadiene	83	10	75		111.0	80	120				
Hexachlorocyclopentadiene	81	10	75		108.0	80	120				
Hexachloroethane	85	10	75		113.0	80	120				
Indeno(1,2,3-cd)pyrene	79	10	75		105.0	80	120				
Isophorone	77	10	75		102.0	80	120				
m+p-Cresols	87	10	75		116.0	80	120				
Naphthalene	84	10	75		112.0	80	120				
Nitrobenzene	89	10	75		119.0	80	120				
n-Nitrosodimethylamine	87	10	75		117.0	80	120				
n-Nitroso-di-n-propylamine	89	10	75		119.0	80	120				
n-Nitrosodiphenylamine	80	10	75		107.0	80	120				
o-Cresol	84	10	75		113.0	80	120				
Pentachlorophenol	85	10	75		113.0	80	120				
Phenanthrene	79	10	75		106.0	80	120				
Phenol	86	10	75		115.0	80	120				
Pyrene	78	10	75		104.0	80	120				
Pyridine	87	10	75		116.0	80	120				
Surr: 2,4,6-Tribromophenol	82	10	75		109.0	80	120				
Surr: 2-Fluorobiphenyl	76	10	75		102.0	80	120				
Surr: 2-Fluorophenol	87	10	75		116.0	80	120				
Surr: Nitrobenzene-d5	80	10	75		107.0	80	120				
Surr: Phenol-d5	85	10	75		113.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Run ID: Run Order: SV5973N.I_220104A: 9 **SampType:** Initial Calibration Verification Standard **Batch ID:** R372873
Method: SW8270C **Analysis Date:** 01/04/2022 18:18 **Prep Date:**
Lab ID: 04-Jan-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	74	10	75		99.0	80	120				

Associated Samples: **B21121961-001C**

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961
Project: CV18F0126/60571032.02.46.01

Revised Date: 03/18/2022
Report Date: 02/09/2022

Analysis Method	Analysis	Batch ID	Associated Samples	Sample Type	Lab ID	Analysis Date	Analysis Time	Analyte	%REC	Low Limit	High Limit	% RPD	RPD Limit	Qual
SW8260B	8260-Volatile Organic Compounds QC Samples	R372727	001G, 003A	MS-DOD	B21121841-001CMS	12/27/2021	18:45	1,1,2,2-Tetrachloroethane	123.0	71	121			S
								Bromomethane	26.0	53	141			S
				MSD-DOD	B21121841-001CMSD	12/27/2021	19:12	Bromomethane	42.0	53	141	46	20.0	SR
				CCV	CCV122721_Closing	12/27/2021	20:07	Bromomethane	47.0	50	150			S
		R372824	001G, 003A	MS-DOD	B21121841-001CMS	12/28/2021	19:09	Bromomethane	20.0	53	141			S
				MSD-DOD	B21121841-001CMSD	12/28/2021	19:36	1,1-Dichloroethene	111.0	71	131	23	20.0	R
								Bromomethane	38.0	53	141	61	20.0	SR
				CCV	CCV122821_Closing	12/28/2021	20:31	Bromomethane	47.0	50	150			S
SW8270C	Semi-Volatile Organic Compounds, Extended List	162475	001C	LCS-DOD	LCS-162475	1/4/2022	20:28	4-Nitrophenol	41.0	15	36			S
								n-Nitrosodimethylamine	46.0	20	45			S
				LCSD-DOD	LCSD-162475	1/4/2022	21:01	4-Nitrophenol	39.0	15	36	4.6	20.0	S
				MS-DOD	B21121877-001EMS	1/4/2022	23:43	4-Chlorophenol	89.0	41	81			S
								4-Nitrophenol	40.0	15	36			S
								Benzidine	0.0	10	100			S
								n-Nitrosodimethylamine	59.0	20	45			S
				MSD-DOD	B21121877-001EMSD	1/5/2022	00:15	2,6-Dinitrotoluene	119.0	50	118	14	20.0	S
								4-Chlorophenol	90.0	41	81	1.5	20.0	S
								4-Nitrophenol	49.0	15	36	20	20.0	S
								Benzidine	0.0	10	100		20.0	S
								Benzo(b)fluoranthene	69.0	53	131	24	20.0	R
								Benzo(k)fluoranthene	65.0	57	129	21	20.0	R
								bis(2-ethylhexyl)Phthalate	81.0	55	135	21	20.0	R
								Di-n-octyl phthalate	75.0	51	140	25	20.0	R
								Hexachlorocyclopentadiene	38.0	39	91	44	20.0	SR
								n-Nitrosodimethylamine	61.0	20	45	4.0	20.0	S
		R372873	001C	ICV	04-Jan-22_CCV_9	1/4/2022	18:18	Dimethyl phthalate	122.0	80	120			S

Preparation and Analysis Dates Report

Work Order: B21121961
Client: AECOM - Honolulu
Project Name: CV18F0126/60571032.02.46.01

Date Revised: 3/18/2022
Report Date: 2/09/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2234 (RHMW01R)	12/20/2021 15:20	Ground Water	Metals by ICP-MS, Total		SW3010A	12/27/2021 13:40	162497	SW6020	12/28/2021 14:15
						SW3010A	12/27/2021 13:40	162497	SW6020	01/19/2022 03:37
001C	ERH2234 (RHMW01R)	12/20/2021 15:20	Ground Water	Low Level PAH		SW3510C	12/27/2021 12:21	162475	SW8270C	01/04/2022 19:40
						SW3510C	12/27/2021 12:21	162475	SW8270C	01/04/2022 20:13
				Semi-Volatile Organic Compounds		SW3510C	12/27/2021 12:21	162475	SW8270C	01/04/2022 22:38
001D	ERH2234 (RHMW01R)	12/20/2021 15:20	Ground Water	Diesel Range Organics		SW3520C	12/27/2021 14:13	162502	SW8015C	12/30/2021 11:21
						SW3520C	12/27/2021 14:13	162502	SW8015C	01/03/2022 08:12
						SW3520C	01/27/2022 12:45	163307	SW8015C	01/29/2022 06:50
						SW3520C	01/27/2022 12:45	163307	SW8015C	02/01/2022 03:16
001H	ERH2234 (RHMW01R)	12/20/2021 15:20	Ground Water	EDB in Water by ECD		SW8011	12/28/2021 09:08	162519	SW8011	12/28/2021 18:29
004A	ERH2233 Trip Blank-14451	12/20/2021 15:20	Trip Blank	EDB in Water by ECD		SW8011	12/28/2021 09:08	162519	SW8011	12/28/2021 18:49

Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121961 **Revised Date:** 03/18/2022
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/09/2022

Analyses	CAS No
AGGREGATE ORGANICS	
Organic Carbon, Total (TOC)	7440-44-0
METALS, TOTAL	
Lead	7439-92-1
METALS, DISSOLVED	
Lead	7439-92-1
VOLATILE ORGANIC COMPOUNDS	
Benzene	71-43-2
Bromobenzene	108-86-1
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Bromomethane	74-83-9
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chlorodibromomethane	124-48-1
Chloroethane	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
1,2-Dibromoethane	106-93-4
2-Chlorotoluene	95-49-8
4-Chlorotoluene	106-43-4
Dibromomethane	74-95-3
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	75-35-4
cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethene	156-60-5
1,2-Dichloropropane	78-87-5
1,3-Dichloropropane	142-28-9
2,2-Dichloropropane	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6

Ethylbenzene	100-41-4
Methyl ethyl ketone	78-93-3
Methyl tert-butyl ether (MTBE)	1634-04-4
Methylene chloride	75-09-2
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethene	79-01-6
Trichlorofluoromethane	75-69-4
1,2,3-Trichloropropane	96-18-4
Vinyl chloride	75-01-4
m+p-Xylenes	179601-23-1
o-Xylene	95-47-6
Xylenes, Total	1330-20-7

VOCS BY MICROEXTRACTION-ECD

1,2-Dibromoethane	106-93-4

PETROLEUM HYDROCARBONS-VOLATILE

C6 to C10	
Total Purgeable Hydrocarbons	

PETROLEUM HYDROCARBONS-SEMI-VOLATILE

Diesel Range Organics (C10 to C24)	
Diesel Range Organics (SGT-C10 to C24)	
Oil Range Hydrocarbons (C24 to C40)	
Oil Range Hydrocarbons (SGT-C24 to C40)	
Total Extractable Hydrocarbons	
Total Extractable Hydrocarbons (SGT)	

ORGANIC CHARACTERISTICS

Methane	74-82-8

SEMI-VOLATILE ORGANIC COMPOUNDS

1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
1-Methylnaphthalene	90-12-0
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-83-2
2,4-Dimethylphenol	105-67-9
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Chloronaphthalene	91-58-7

2-Chlorophenol	95-57-8
2-Methylnaphthalene	91-57-6
2-Nitrophenol	88-75-5
3,3´-Dichlorobenzidine	91-94-1
4,6-Dinitro-2-methylphenol	534-52-1
4-Bromophenyl phenyl ether	101-55-3
4-Chloro-3-methylphenol	59-50-7
4-Chlorophenol	106-48-9
4-Chlorophenyl phenyl ether	7005-72-3
4-Nitrophenol	100-02-7
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Azobenzene	103-33-3
Benzidine	92-87-5
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
bis(-2-chloroethoxy)Methane	111-91-1
bis(-2-chloroethyl)Ether	111-44-4
bis(2-chloroisopropyl)Ether	108-60-1
bis(2-ethylhexyl)Phthalate	117-81-7
Butylbenzylphthalate	85-68-7
Chrysene	218-01-9
Di-n-butyl phthalate	84-74-2
Di-n-octyl phthalate	117-84-0
Dibenzo(a,h)anthracene	53-70-3
Diethyl phthalate	84-66-2
Dimethyl phthalate	131-11-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Indeno(1,2,3-cd)pyrene	193-39-5
Isophorone	78-59-1
m+p-Cresols	15831-10-4
n-Nitroso-di-n-propylamine	621-64-7
n-Nitrosodimethylamine	62-75-9
n-Nitrosodiphenylamine	86-30-6
Naphthalene	91-20-3
Nitrobenzene	98-95-3
o-Cresol	95-48-7
Pentachlorophenol	87-86-5
Phenanthrene	85-01-8
Phenol	108-95-2
Pyrene	129-00-0

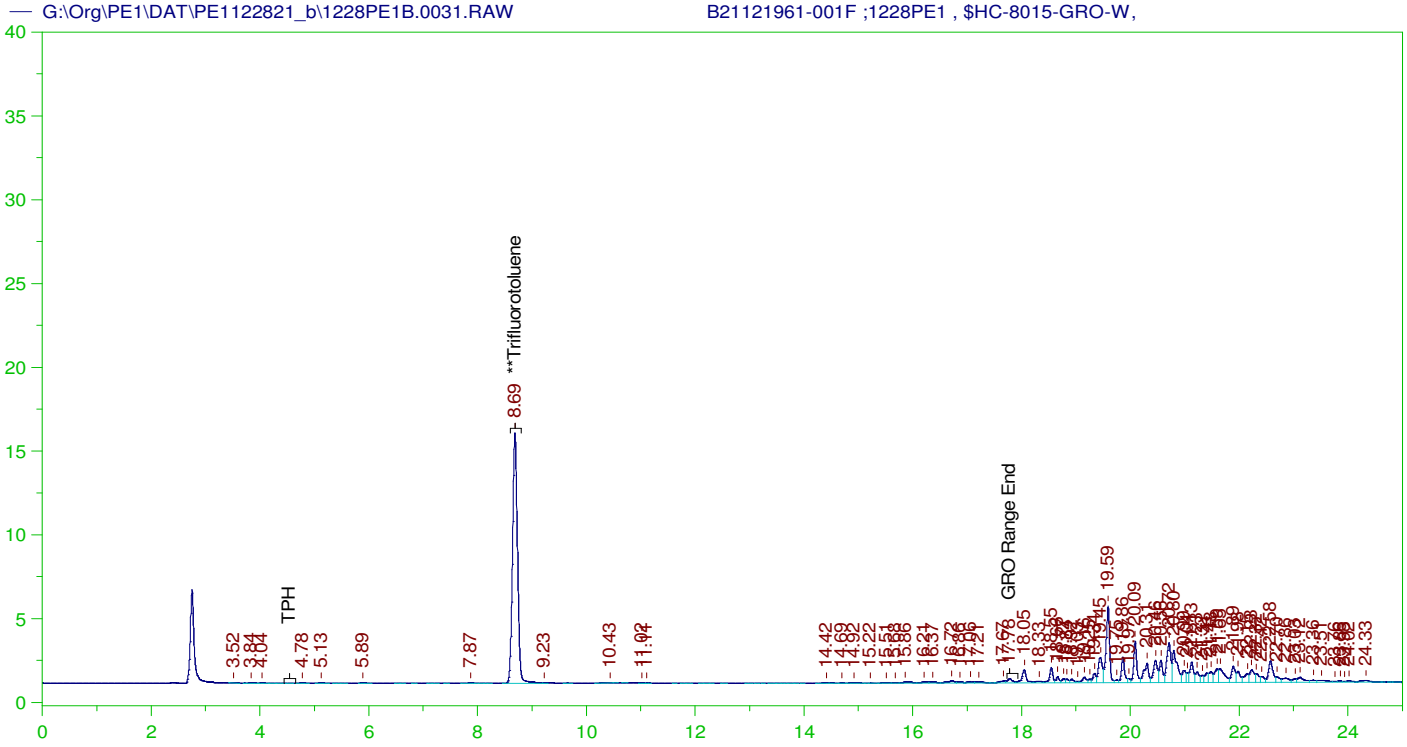
Pyridine	110-86-1

SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM

1-Methylnaphthalene	90-12-0
2-Methylnaphthalene	91-57-6
Naphthalene	91-20-3

ERH2234 (RHMW01R)

G:\Org\PE1\DAT\PE1122821_b\1228PE1B.0031.RAW B21121961-001F ;1228PE1 , $HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121961-001F ;1228PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1122821_b\1228PE1B.0031.RAW
Date & Time Acquired: 12/29/2021 12:49:27 AM
Method File: G:\Org\PE1\Methods\211208G1961-1B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

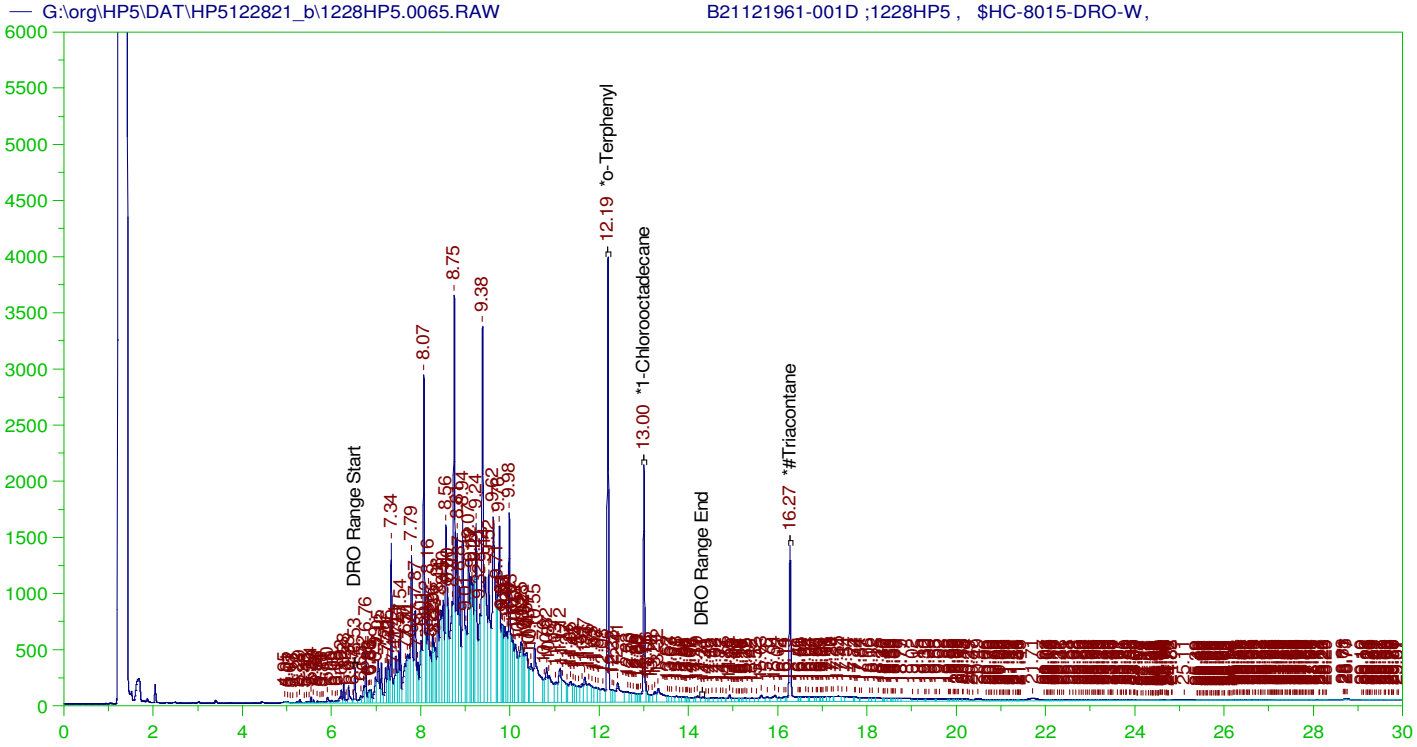
Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.688	25.	20.249	81.	-

GRO Area:10911.31 GRO Amount: 2.30691
TPH Area:198252.8 TPH Amount: 43.6012

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP5\DAT\HP5122821_b\1228HP5.0065.RAW B21121961-001D ;1228HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121961-001D ;1228HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122821_b\1228HP5.0065.RAW
Date & Time Acquired: 12/30/2021 11:21:17 AM
Method File: G:\Org\HP5\Methods\DR_8015-122843-IM-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IM-24-Tri.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.48 to 14.36

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.191	.198	.223	112.58	-
*1-Chlorooctadecane	13.002	.198	.132	66.66	-
*#Triacontane	16.273	.198	.137	68.97	-

DRO Area:1.773908E+08 DRO Amount: 5.601806
TEH Area:1.923237E+08 TEH Amount: 6.073369

ERH2234 (RHMW01R) Batch ID: 162502

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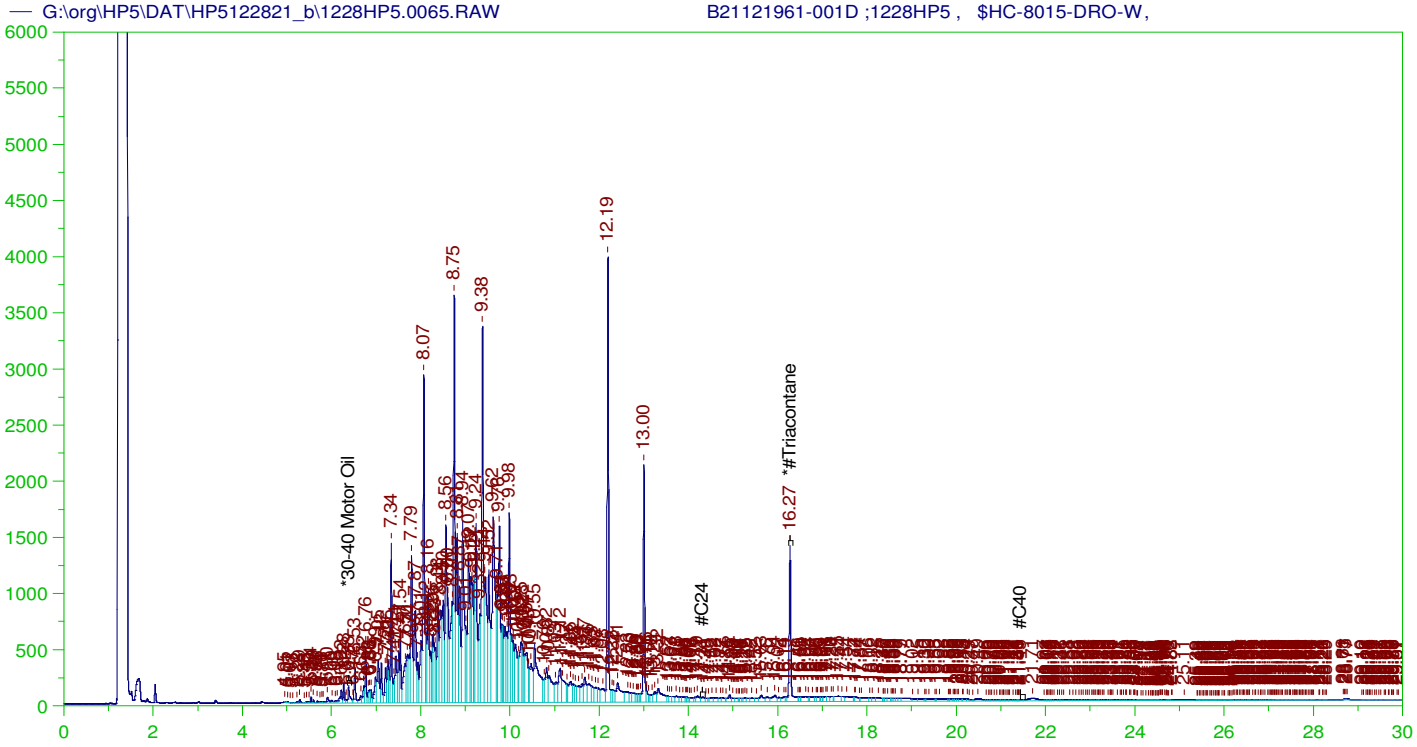


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121961-001D ;1228HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122821_b\1228HP5.0065.RAW
Date & Time Acquired: 12/30/2021 11:21:17 AM
Method File: G:\Org\HP5\Methods\D3_OROS-122843-AL-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AL-SAMP.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

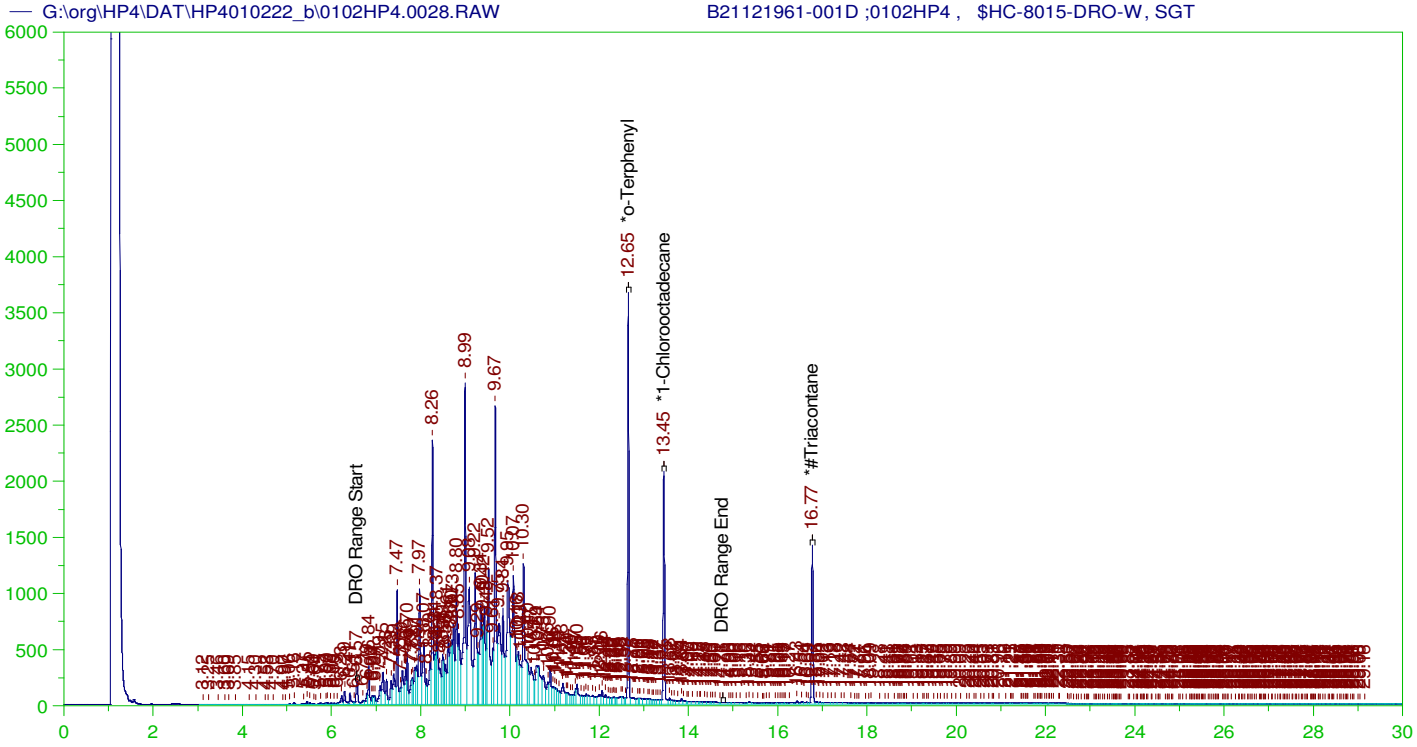
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.27 to 21.54

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.273	.495	.137	27.59	-

RRO Area:1.13593E+07 RRO AMOUNT: 0.3940392

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP4\DAT\HP4010222_b\0102HP4.0028.RAW B21121961-001D ;0102HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121961-001D ;0102HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0028.RAW
Date & Time Acquired: 1/3/2022 8:12:17 AM
Method File: G:\Org\HP4\methods\D3_8015-C24-OH-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

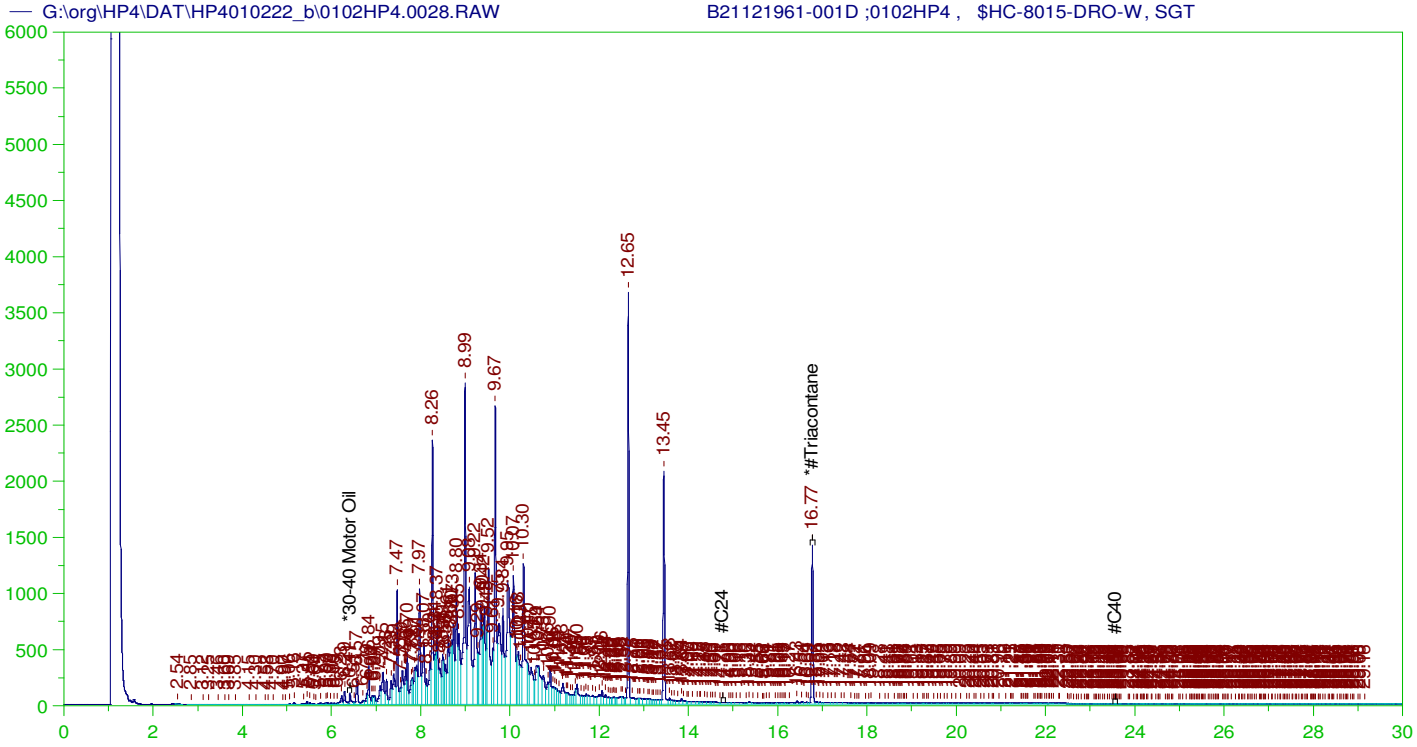
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.648	.198	.198	100.02	-
*1-Chlorooctadecane	13.446	.198	.123	62.34	-
*#Triacontane	16.771	.198	.121	60.91	-

DRO Area:1.246529E+08 DRO Amount: 4.201734
TEH Area:1.299047E+08 TEH Amount: 4.378759

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP4\DAT\HP4010222_b\0102HP4.0028.RAW B21121961-001D ;0102HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121961-001D ;0102HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0028.RAW
Date & Time Acquired: 1/3/2022 8:12:17 AM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AB-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

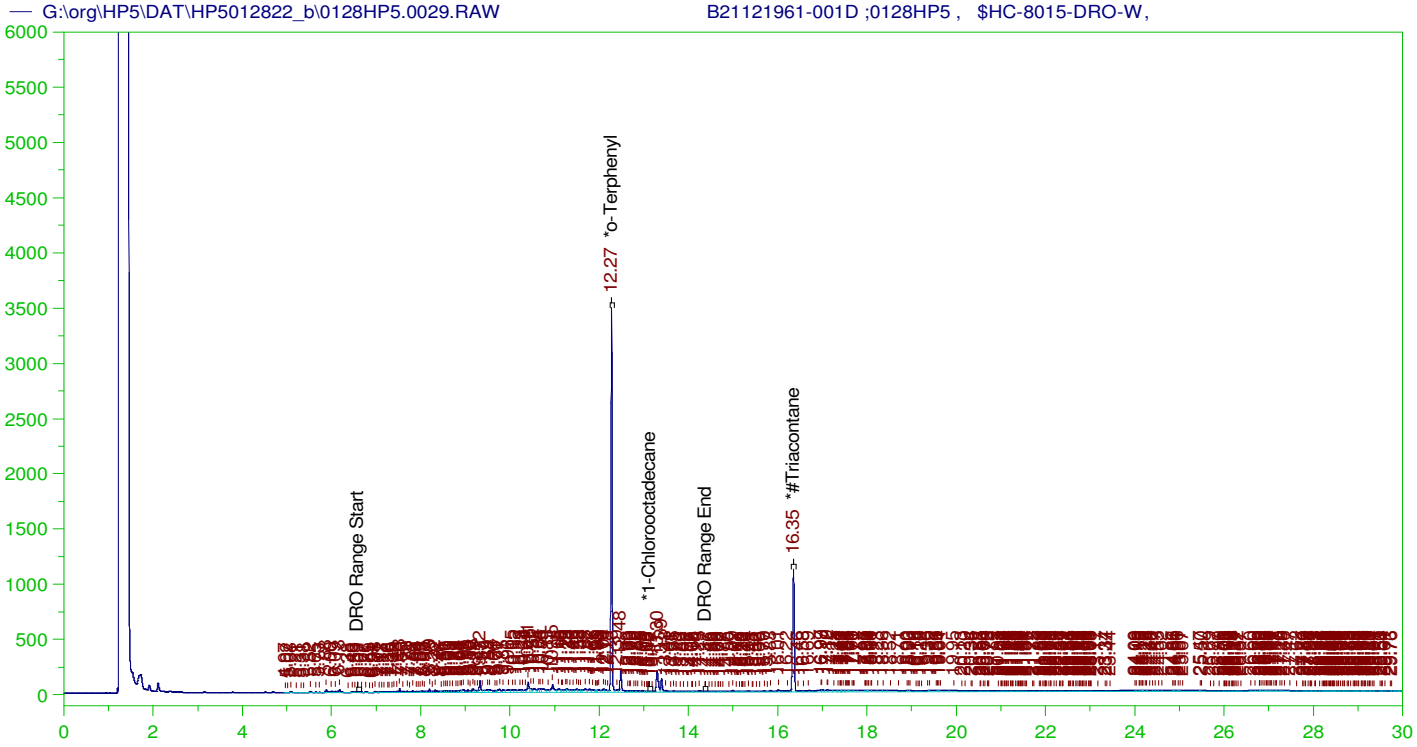
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.73 to 23.61

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.771	.495	.121	24.36	-

RRO Area:3686571 RRO AMOUNT: 0.1488029

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP5\DAT\HP5012822_b\0128HP5.0029.RAW B21121961-001D ;0128HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121961-001D ;0128HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0029.RAW
Date & Time Acquired: 1/29/2022 6:50:36 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

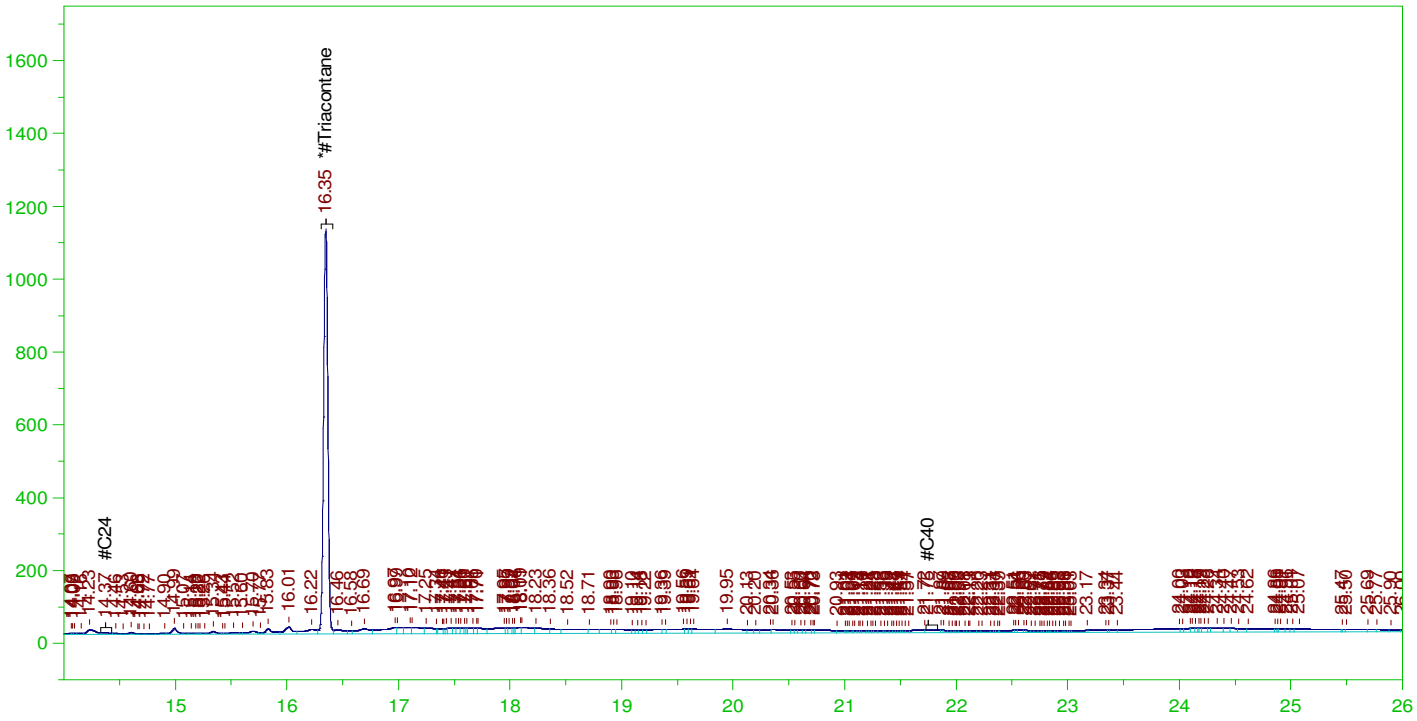
Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.196	.178	90.89	-
*1-Chlorooctadecane	13.12	.196	.001	.36	-
*#Triacontane	16.348	.196	.097	49.28	-

DRO Area:8177649 DRO Amount: 0.2453623
TEH Area:1.511738E+07 TEH Amount: 0.453582

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP5\DAT\HP5012822_b\0128HP5.0029.RAW B21121961-001D ;0128HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121961-001D ;0128HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0029.RAW
Date & Time Acquired: 1/29/2022 6:50:36 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BD-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

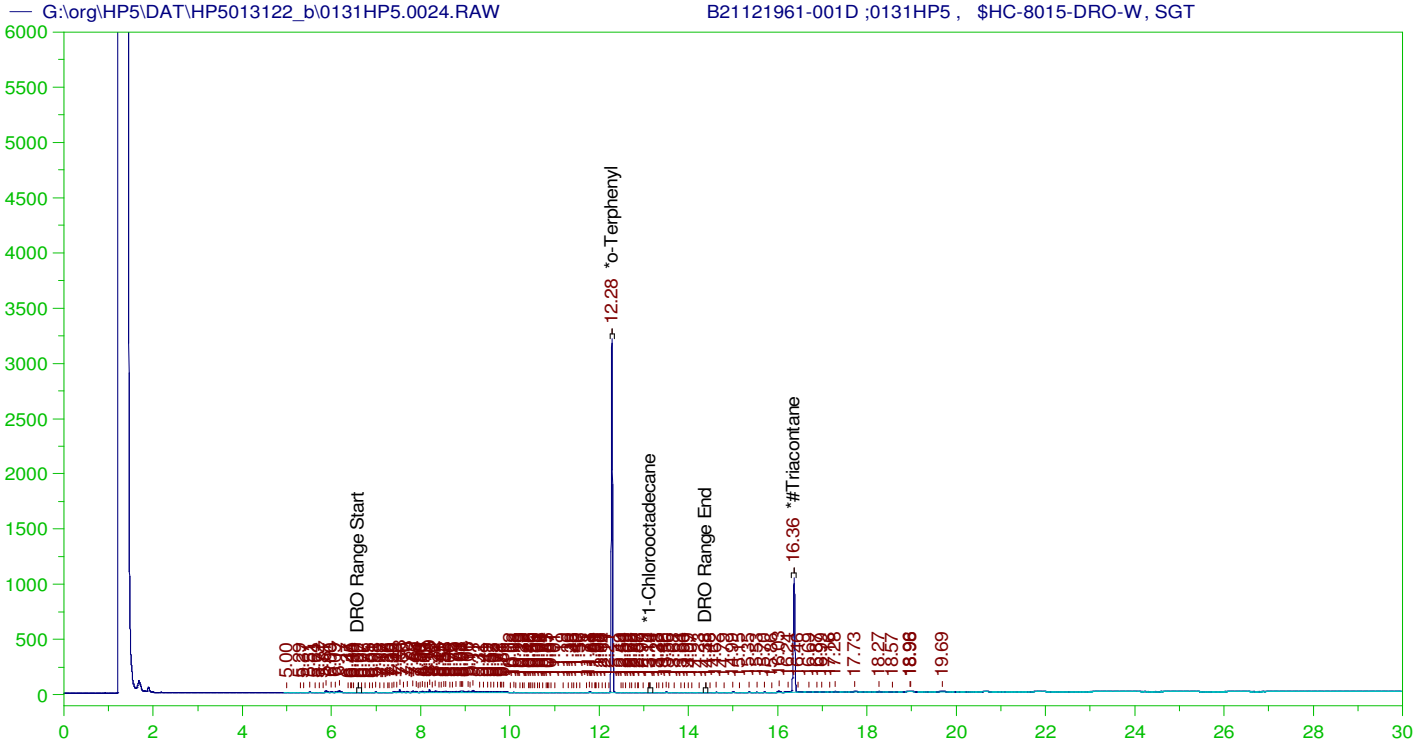
Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.348	.49	.097	19.71	-

RRO Area:4082230 RRO AMOUNT: 0.1514571

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP5\DAT\HP5013122_b\0131HP5.0024.RAW B21121961-001D ;0131HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121961-001D ;0131HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0024.RAW
Date & Time Acquired: 2/1/2022 3:16:34 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

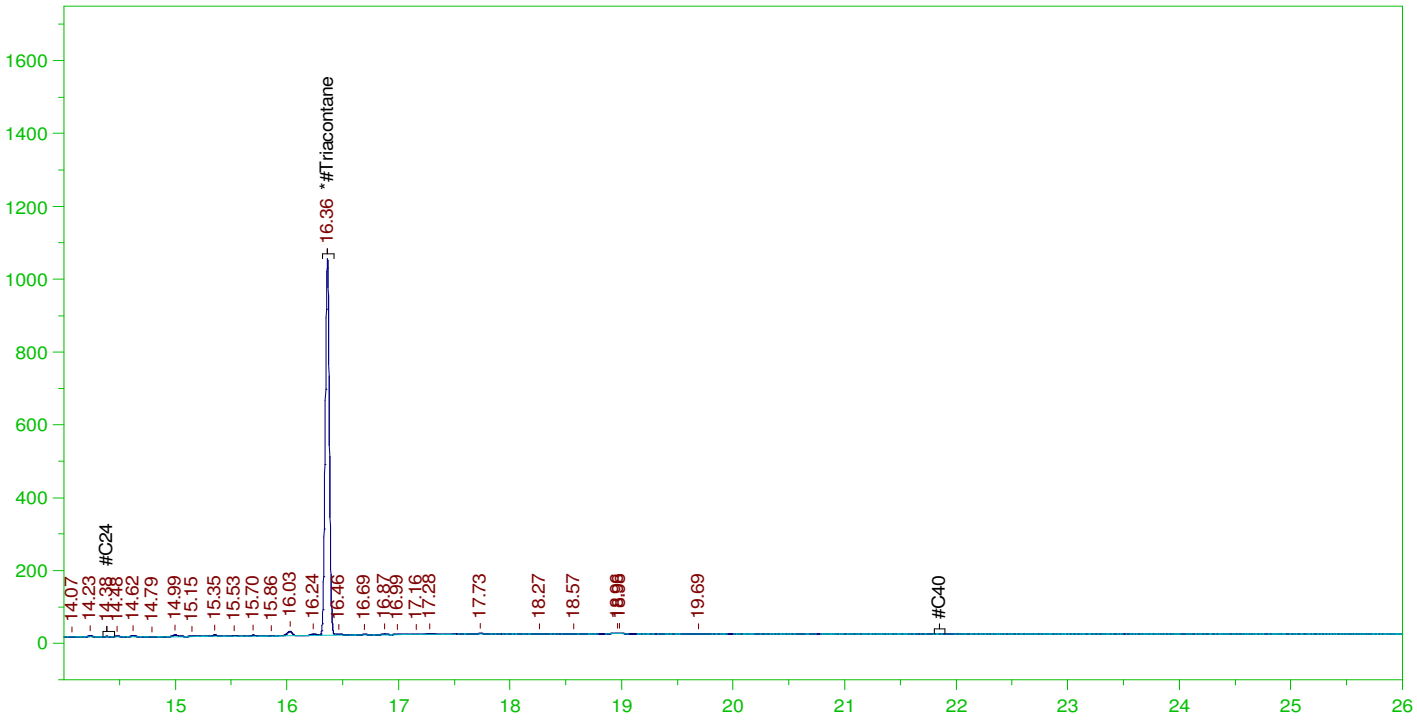
Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	.196	.164	83.89	-
*1-Chlorooctadecane	13.138	.196	. .04		-
*#Triacontane	16.362	.196	.089	45.27	-

DRO Area:1559217 DRO Amount: 4.678278E-02
TEH Area:2016203 TEH Amount: 6.049421E-02

ERH2234 (RHMW01R) Batch ID: 162502

G:\org\HP5\DAT\HP5013122_b\0131HP5.0024.RAW B21121961-001D ;0131HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121961-001D ;0131HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0024.RAW
Date & Time Acquired: 2/1/2022 3:16:34 AM
Method File: G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BDa_SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.362	.49	.089	18.11	-

RRO Area:192161.6 RRO AMOUNT: 7.129495E-03

From: Ramos, Alethea <alethea.ramos@aecom.com>
Sent: Monday, December 13, 2021 3:11 PM
To: Tabitha Edwards
Cc: Pascua, Margie; billingsPM@energylab.com
Subject: RE: [EXTERNAL] FW: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission

Categories: Must Attend

Hi Tabitha,

I believe Casper WY is DoD ELAP accredited in the TOC 9060 method. I spoke to Shari and she indicated there is a daily courier between Billings and Casper, and would be appx. a day delay. Under those stipulations, please subcontract these samples and inform on expedited TAT.

Thank you,

Alethea Ramos, CIH
Environmental Scientist, Environmental Health & Science, Environment
D +1-808-529-7283
M +1-808-389-5383
alethea.ramos@aecom.com

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Suite 1600
Honolulu, HI 96813, United States of America
aecom.com

From: Tabitha Edwards <tedwards@energylab.com>
Sent: Monday, December 13, 2021 7:05 AM
To: Ramos, Alethea <alethea.ramos@aecom.com>
Cc: Pascua, Margie <Margie.Pascua@aecom.com>; billingsPM@energylab.com
Subject: [EXTERNAL] FW: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission
Importance: High

Alethea,

The TOC by 9060 must be subcontracted to our office in Casper, WY. I need authorization from you to subcontract these. Once that has been received we will discuss the TAT with them and let you know what is achievable.

Thank you,

Energy Laboratories, Inc.
Trust our People. Trust our Data.

Tabitha Edwards | Office Manager | Billings, MT
O: 406-869-6286 | tedwards@energylab.com | www.energylab.com

***We want to help you ship successfully**! Please plan ahead and allow extra time to receive supplies from the lab and for the lab to receive your samples. All carriers are in full-swing holiday peak season operating with double the volume and limited capacity. We appreciate your business so please contact your local branch or Project Manager to discuss adjustments to your shipping schedule or to ask questions.*

From: Ramos, Alethea [mailto:alethea.ramos@aecom.com]
Sent: Saturday, December 11, 2021 3:20 AM
To: Shari Endy; billingsPM@energylab.com
Cc: Jillian Miller; Pascua, Margie; KaaihiliChoy, Terri Ann
Subject: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission
Importance: High

Hi Shari and Billings PM,

You will be receiving a Saturday shipment (12/12) of groundwater samples indicated in the attached COCs. We will need results by **Wednesday, December 15th**, and will pay any fees incurred for an expedited TAT. Please proceed with analysis without preservation traceability. Please see below tracking information links:

https://www.fedex.com/fedextrack/?trknbr=287337969629&trkqual=2459558000~287337969629~FX
https://www.fedex.com/fedextrack/?trknbr=287343101019&trkqual=2459559000~287343101019~FX

Thank you,

Alethea Ramos, CIH
Environmental Scientist, Environmental Health & Science, Environment
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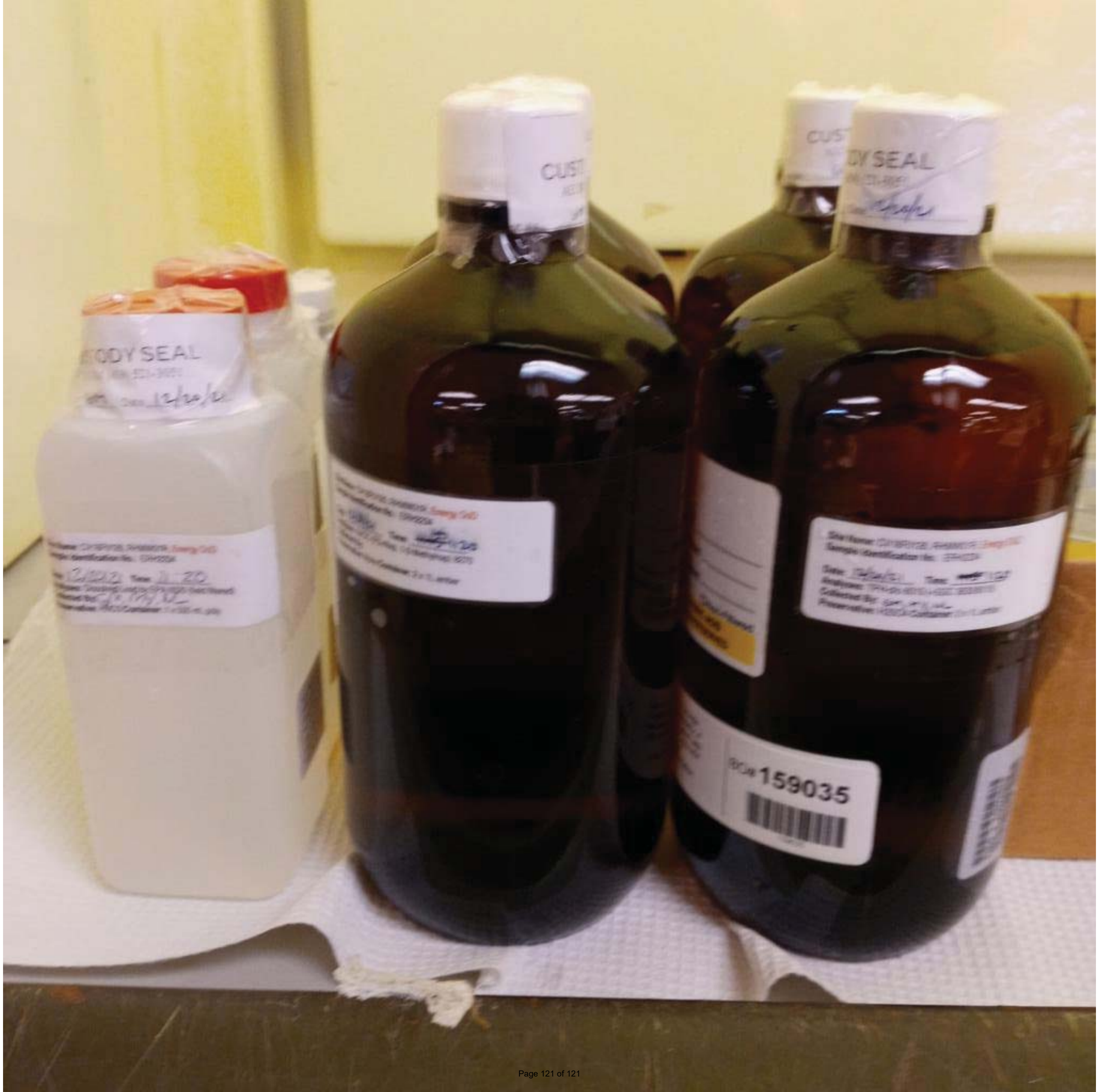
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