



ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM

1001 Bishop Street
Honolulu, Hawaii 96813

Generated 11/20/2023 9:40:25 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-133679-1

Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
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Case Narrative

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Job ID: 580-133679-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-133679-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Receipt

The samples were received on 11/9/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

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

Method 8015C GLY - Glycols- Direct Injection (GC/FID)

Samples AF-HDMW225303-WGN01LF-2311 (133679-5), AF-RHMW02-WGFD01LF-2311 (133679-7), AF-RHMW02-WGN01LF-2311 (133679-6), AF-RHMW04-WGN01LF-2311 (133679-3), AF-RHMW06-WGN01LF-2311 (133679-2), AF-RHMW16-WGN01LF-2311 (133679-1) and AF-RHMW225401-WGN01B-2311 (133679-4) were analyzed for Glycols- Direct Injection (GC/FID). The samples were analyzed on 11/16/2023 and 11/19/2023.

The continuing calibration verification (CCV) associated with batch 680-808697 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

The closing continuing calibration verification (CCV) associated with batch 680-809119 recovered outside acceptance criteria, low biased, for 2-(2-Butoxyethoxy)ethanol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte, the data has been reported.

Definitions/Glossary

Client: AECOM

Job ID: 580-133679-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

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

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Client Sample ID: AF-RHMW16-WGN01LF-2311

Lab Sample ID: 580-133679-1

Date Collected: 11/06/23 10:20

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			11/16/23 20:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Client Sample ID: AF-RHMW06-WGN01LF-2311

Lab Sample ID: 580-133679-2

Date Collected: 11/07/23 12:40

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			11/16/23 20:54	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM

Job ID: 580-133679-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW04-WGN01LF-2311

Lab Sample ID: 580-133679-3

Date Collected: 11/07/23 10:00

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M Q	5.0	1.1	mg/L			11/16/23 21:17	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM

Job ID: 580-133679-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW225401-WGN01B-2311

Lab Sample ID: 580-133679-4

Date Collected: 11/07/23 11:40

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M Q	5.0	1.1	mg/L			11/16/23 21:40	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM

Job ID: 580-133679-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2311

Lab Sample ID: 580-133679-5

Date Collected: 11/07/23 10:00

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			11/19/23 14:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Client Sample ID: AF-RHMW02-WGN01LF-2311

Lab Sample ID: 580-133679-6

Date Collected: 11/07/23 11:50

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			11/16/23 22:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Client Sample ID: AF-RHMW02-WGFD01LF-2311

Lab Sample ID: 580-133679-7

Date Collected: 11/07/23 11:50

Matrix: Water

Date Received: 11/09/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			11/16/23 22:51	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

QC Sample Results

Client: AECOM
 Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 680-808697/11
Matrix: Water
Analysis Batch: 808697

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

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			11/16/23 20:07	1

Lab Sample ID: LCS 680-808697/1007
Matrix: Water
Analysis Batch: 808697

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	23.2		mg/L		116	50 - 150

Lab Sample ID: LCSD 680-808697/8
Matrix: Water
Analysis Batch: 808697

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	23.6		mg/L		118	50 - 150	2	50

Lab Sample ID: 580-133679-1 MS
Matrix: Water
Analysis Batch: 808697

Client Sample ID: AF-RHMW16-WGN01LF-2311
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U Q	20.0	23.8		mg/L		119	50 - 150

Lab Sample ID: 580-133679-1 MSD
Matrix: Water
Analysis Batch: 808697

Client Sample ID: AF-RHMW16-WGN01LF-2311
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U Q	20.0	26.8		mg/L		134	50 - 150	12	50

Lab Sample ID: MB 680-809119/8
Matrix: Water
Analysis Batch: 809119

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

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			11/19/23 14:19	1

Lab Sample ID: LCS 680-809119/1005
Matrix: Water
Analysis Batch: 809119

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	20.3		mg/L		102	50 - 150

Lab Sample ID: LCSD 680-809119/6
Matrix: Water
Analysis Batch: 809119

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	15.4		mg/L		77	50 - 150	28	50

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Lab Chronicle

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Client Sample ID: AF-RHMW16-WGN01LF-2311

Lab Sample ID: 580-133679-1

Date Collected: 11/06/23 10:20

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 20:30

Client Sample ID: AF-RHMW06-WGN01LF-2311

Lab Sample ID: 580-133679-2

Date Collected: 11/07/23 12:40

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 20:54

Client Sample ID: AF-RHMW04-WGN01LF-2311

Lab Sample ID: 580-133679-3

Date Collected: 11/07/23 10:00

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 21:17

Client Sample ID: AF-RHMW225401-WGN01B-2311

Lab Sample ID: 580-133679-4

Date Collected: 11/07/23 11:40

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 21:40

Client Sample ID: AF-HDMW225303-WGN01LF-2311

Lab Sample ID: 580-133679-5

Date Collected: 11/07/23 10:00

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	809119	DBM	EET SAV	11/19/23 14:42

Client Sample ID: AF-RHMW02-WGN01LF-2311

Lab Sample ID: 580-133679-6

Date Collected: 11/07/23 11:50

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 22:27

Client Sample ID: AF-RHMW02-WGFD01LF-2311

Lab Sample ID: 580-133679-7

Date Collected: 11/07/23 11:50

Matrix: Water

Date Received: 11/09/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	808697	DBM	EET SAV	11/16/23 22:51

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Seattle

Accreditation/Certification Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-133679-1

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol



Sample Summary

Client: AECOM

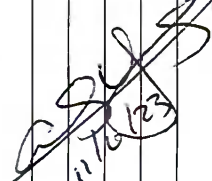

Job ID: 580-133679-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-133679-1	AF-RHMW16-WGN01LF-2311	Water	11/06/23 10:20	11/09/23 10:30
580-133679-2	AF-RHMW06-WGN01LF-2311	Water	11/07/23 12:40	11/09/23 10:30
580-133679-3	AF-RHMW04-WGN01LF-2311	Water	11/07/23 10:00	11/09/23 10:30
580-133679-4	AF-RHMW225401-WGN01B-2311	Water	11/07/23 11:40	11/09/23 10:30
580-133679-5	AF-HDMW225303-WGN01LF-2311	Water	11/07/23 10:00	11/09/23 10:30
580-133679-6	AF-RHMW02-WGN01LF-2311	Water	11/07/23 11:50	11/09/23 10:30
580-133679-7	AF-RHMW02-WGFD01LF-2311	Water	11/07/23 11:50	11/09/23 10:30



Chain of Custody Record

Client Information			Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2311AFEAO6		
Client Contact:			Phone: <i>808-521-3051</i>		E-Mail: <i>M.Elaine.Walker@EurofinsET.com</i>		State of Origin: Hawaii		Page: Page 1 of 1		
Company: AECOM			PWSID:		Analysis Requested						
Address: 1001 Bishop St. Suite 1600			Due Date Requested: see subcontract		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Field Filtered Sample (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Perform MS/MSD (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">8015C, DAI, GL, DS/2-(2-butoxyethoxy)ethanol</div> <div style="text-align: center; font-size: x-large; margin: 0 auto;">  </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Total Number of containers</div> </div>						
City: Honolulu			TAT Requested (days): Rush - 5 Day								
State, Zip: Hawaii 96813			Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
Phone: 808-954-4512 / 770-331-0794			PO #:								
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)			WO #:								
Project Name: CTO N6274223F0104			Project #: 60697810								
Site: RHSF			SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix <small>(W=water, S=solid, O=wastewater, BT=Tissue, A=Air)</small>	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	Special Instructions/Note:
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
AF-RHMW16-WGN01LF-2311		<i>11/6/23</i>	<i>1026</i>	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
				 580-133679 Chain of Custody							
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUS EDD.				Special Instructions/QC Requirements: DOD QSM project.			
Empty Kit Relinquished by:			Date:			Time:			Method of Shipment:		
Relinquished by: <i>Andy Young ASYS</i>		Date/Time: <i>11/6/23/1200</i>		Company: AECOM		Received by: <i>Justin Dent</i>		Date/Time: <i>11-6-23/1200</i>		Company: AECOM	
Relinquished by: <i>Justin Dent</i>		Date/Time: <i>11-7-23/1300</i>		Company: AECOM		Received by: <i>Justin Dent</i>		Date/Time: <i>11/9/23 1050</i>		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: <i>3.8/4.1</i>			

1

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11

Chain of Custody Record

Client Information		Sampler: Miranda DeGarmo	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2311AFEA09						
Client Contact:		Phone: 330-205-9662	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1						
Company: AECOM		PWSID:			Job #:						
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		Analysis Requested							
City: Honolulu		TAT Requested (days): Rush - 5 Day									
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 808-954-4512 / 770-331-0794		PO #:									
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:									
Project Name: CTO N6274223F0104		Project #: 60697810		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:							
Site: RHSF		SSOW#:									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic, B=BT tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	8015C.DAL.GL.DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:		
AF-RHMW06-WGN01LF-2311	11/7/23	1240	G	W	N	N	X			3	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS EDD.						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: Miranda DeGarmo		Date/Time: 11/7/23		Company: AECOM		Received by: [Signature]		Date/Time: 11-7-23/1400		Company: AECOM	
Relinquished by: [Signature]		Date/Time: 11-7-23/1410		Company: AECOM		Received by: [Signature]		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:		Received by: [Signature]		Date/Time: 11/9/23 1030		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 3.5/4.1						

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Chain of Custody Record

Client Information			Sampler: <u>Clara Lin</u>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2311AFE07		
Client Contact:			Phone: <u>8082686104</u>		E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>		State of Origin: Hawaii		Page: Page 1 of 1		
Company: AECOM			PWSID:		Analysis Requested					Job #:	
Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813			Due Date Requested: see subcontract TAT Requested (days): Rush - 5 Day Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							Preservation Codes:	
Phone: 808-954-4512 / 770-331-0794 Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)			PO #:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8015C, DAL, GL, D5/2-(2-butoxyethoxy)-ethanol <i>W 11/07/23</i>		Other:				
Project Name: CTO N6274223F0104 Site: RHSF			Project #: 60697810 SSOW#:				Total Number of containers:		Special Instructions/Note:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=soil, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C, DAL, GL, D5/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note		
AF-RHMW225401-WGN01B-2311	<u>11/07/23</u>	<u>1100</u>	G	W	N	N	X	3			
<i>W 11/07/23</i>											
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Prelim data (Level 1 or 2)—see TAT above. DoD Stage 4 report standard TAT. AECOM EQUS EDD.						
Empty Kit Relinquished by:					Date:		Time:		Method of Shipment:		
Relinquished by: <u>Clara Lin</u>			Date/Time: <u>11/07/23 11345</u>		Company: AECOM		Received by: <u>[Signature]</u>		Date/Time: <u>11-7-23 / 1345</u>		
Relinquished by: <u>[Signature]</u>			Date/Time: <u>11-7-23 1400</u>		Company: AECOM		Received by: <u>[Signature]</u>		Date/Time: <u>11/9/23 1030</u>		
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: <u>3.8/4.1</u>						

Chain of Custody Record

Client Information		Sampler: <i>Clara Im</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2311AFE04																												
Client Contact:		Phone: 808 268 6104	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1																												
Company: AECOM		PWSID:	Analysis Requested																														
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract	<i>2/11/23</i>																														
City: Honolulu		TAT Requested (days): Rush - 5 Day																															
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																															
Phone: 808-954-4512 / 770-331-0794		PO #:																															
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:																															
Project Name: CTO N6274223F0104		Project #: 60697810																															
Site: RHSF		SSOW#:	<table border="0" style="width:100%;"> <tr> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDTA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>			Preservation Codes:		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDTA	Z - other (specify)	Other:	
Preservation Codes:																																	
A - HCL	M - Hexane																																
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E - NaHSO4	Q - Na2SO3																																
F - MeOH	R - Na2S2O3																																
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J - DI Water	V - MCAA																																
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Other:																																	
Sample Identification			Special Instructions/Note:																														
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment, BT=Tissue, AA=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers																											
AF-HDMW225303-WGN01LF-2311				N	N		X	3																									
<i>2/11/23</i>	1000	G	W	N	N	X																											
<i>2/11/23</i>																																	
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																														
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																														
Deliverable Requested: I, II, III, IV, Other (specify)			Special Instructions/QC Requirements: DOD QSM project.																														
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____																																	
Relinquished by: <i>Clara Im</i>		Date/Time: 11/07/23 1 1200	Company: AECOM	Received by: _____	Date/Time: 11-7-23/1200	Company: AECOM																											
Relinquished by: _____		Date/Time: 11-7-23 1/400	Company: AECOM	Received by: _____	Date/Time: _____	Company: _____																											
Relinquished by: _____		Date/Time: _____	Company: _____	Received by: _____	Date/Time: 11/9/23 1030	Company: _____																											
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) /C and Other Remarks: 3-8/4.1																															

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Eurofins FGS, Seattle

5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record



Client Information Client Contact:		Sampler: <u>Matt Yim</u> Phone: <u>808-349-4738</u>		Lab PM: Elaine Walker E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>		Carrier Tracking No(s): FedEx State of Origin: Hawaii		COC No: 2311AFEA01 Page: Page 1 of 1					
Company: AECOM		PWSID:		Analysis Requested						Job #:			
Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Due Date Requested: see subcontract TAT Requested (days): Rush - 5 Day Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Field Filtered Sample (Yes or No) N Performed MS/MSD (Yes or No) N 8015C_DAL_GL_DS/2-(2-butylethoxy)-ethanol <div style="font-size: 2em; opacity: 0.5; position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); pointer-events: none;"> NY 11/7/23 </div>						Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)		Other:	
Project Name: CTO N6274223F0104 Site: RHSF		Project #: 60697810 SSOW#:											
Sample Identification		Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=other) (BT=Biological, A=Air)											
Preservation Code:		Total Number of containers		Special Instructions/Note:									
AF-RHMW02-WGN01LF-2311		11/7/23 1150 G W N N X		3									
AF-RHMW02-WGFD01LF-2311		11/7/23 1150 G W N N X		3									
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQulS EDD.		Special Instructions/QC Requirements: DOD QSM project.									
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:							
Relinquished by: <u>Matt Yim</u>		Date/Time: <u>11/7/23 11230</u>		Company: <u>AECOM</u>		Received by: <u>[Signature]</u>		Date/Time: <u>11-7-23 / 1230</u>		Company: <u>AECOM</u>			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>11-7-23/1400</u>		Company: <u>AECOM</u>		Received by: <u>[Signature]</u>		Date/Time: <u>11/9/23 1030</u>		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) C and Other Remarks: <u>3-8/4.1</u>									

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Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-133679-1

Login Number: 133679

List Number: 1

Creator: Johnson, Corey M

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

