



ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM

1001 Bishop Street
Honolulu, Hawaii 96813

Generated 9/15/2023 11:16:00 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-131369-1

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
Marie Walker, Senior Project Manager
M.Elaine.Walker@et.eurofinsus.com
(253)248-4972



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Case Narrative

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

Job ID: 580-131369-1

Job ID: 580-131369-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-131369-1

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

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

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

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

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

RECEIPT

Seven samples were received on 9/8/2023 2:00 PM. 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 was 4.9° 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.

GLYCOLS

Samples AF-HDMW225303-WGN01LF-2309 (580-131369-1), AF-RHMW10-WGN01LF-2309 (580-131369-2), AF-RHMW225401-WGN01B-2309 (580-131369-3), AF-RHMW12A-WGN01LF-2309 (580-131369-4), AF-RHMW12A-WGFD01LF-2309 (580-131369-5), AF-RHMW02-WGN01LF-2309 (580-131369-6) and AF-RHMW02-WGFD01LF-2309 (580-131369-7) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 09/13/2023.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-131369-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 580-131369-1

Client Sample ID: AF-HDMW225303-WGN01LF-2309

Lab Sample ID: 580-131369-1

Date Collected: 09/05/23 10:55

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 18:27	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: 580-131369-1

Client Sample ID: AF-RHMW10-WGN01LF-2309

Lab Sample ID: 580-131369-2

Date Collected: 09/05/23 13:15

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 18:50	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: 580-131369-1

Client Sample ID: AF-RHMW225401-WGN01B-2309

Lab Sample ID: 580-131369-3

Date Collected: 09/06/23 12:00

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 19:13	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: 580-131369-1

Client Sample ID: AF-RHMW12A-WGN01LF-2309

Lab Sample ID: 580-131369-4

Date Collected: 09/07/23 09:40

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 19:36	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: 580-131369-1

Client Sample ID: AF-RHMW12A-WGFD01LF-2309

Lab Sample ID: 580-131369-5

Date Collected: 09/07/23 09:40

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 19:59	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: 580-131369-1

Client Sample ID: AF-RHMW02-WGN01LF-2309

Lab Sample ID: 580-131369-6

Date Collected: 09/07/23 10:45

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 20:22	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: 580-131369-1

Client Sample ID: AF-RHMW02-WGFD01LF-2309

Lab Sample ID: 580-131369-7

Date Collected: 09/07/23 10:45

Matrix: Water

Date Received: 09/08/23 14:00

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	5.0	1.1	mg/L			09/13/23 20:45	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: 580-131369-1

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

Lab Sample ID: MB 680-797719/18
Matrix: Water
Analysis Batch: 797719

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 M	5.0	1.1	mg/L	-		09/13/23 17:54	1

Lab Sample ID: LCS 680-797719/14
Matrix: Water
Analysis Batch: 797719

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	22.1		mg/L	-	111	50 - 150

Lab Sample ID: LCSD 680-797719/15
Matrix: Water
Analysis Batch: 797719

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	21.6		mg/L	-	108	50 - 150	2	50

Lab Chronicle

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

Job ID: 580-131369-1

Client Sample ID: AF-HDMW225303-WGN01LF-2309

Lab Sample ID: 580-131369-1

Date Collected: 09/05/23 10:55

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 18:27

Client Sample ID: AF-RHMW10-WGN01LF-2309

Lab Sample ID: 580-131369-2

Date Collected: 09/05/23 13:15

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 18:50

Client Sample ID: AF-RHMW225401-WGN01B-2309

Lab Sample ID: 580-131369-3

Date Collected: 09/06/23 12:00

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 19:13

Client Sample ID: AF-RHMW12A-WGN01LF-2309

Lab Sample ID: 580-131369-4

Date Collected: 09/07/23 09:40

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 19:36

Client Sample ID: AF-RHMW12A-WGFD01LF-2309

Lab Sample ID: 580-131369-5

Date Collected: 09/07/23 09:40

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 19:59

Client Sample ID: AF-RHMW02-WGN01LF-2309

Lab Sample ID: 580-131369-6

Date Collected: 09/07/23 10:45

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 20:22

Client Sample ID: AF-RHMW02-WGFD01LF-2309

Lab Sample ID: 580-131369-7

Date Collected: 09/07/23 10:45

Matrix: Water

Date Received: 09/08/23 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	797719	DBM	EET SAV	09/13/23 20:45

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: 580-131369-1

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

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

Sample Summary

Client: AECOM

Job ID: 580-131369-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-131369-1	AF-HDMW225303-WGN01LF-2309	Water	09/05/23 10:55	09/08/23 14:00
580-131369-2	AF-RHMW10-WGN01LF-2309	Water	09/05/23 13:15	09/08/23 14:00
580-131369-3	AF-RHMW225401-WGN01B-2309	Water	09/06/23 12:00	09/08/23 14:00
580-131369-4	AF-RHMW12A-WGN01LF-2309	Water	09/07/23 09:40	09/08/23 14:00
580-131369-5	AF-RHMW12A-WGFD01LF-2309	Water	09/07/23 09:40	09/08/23 14:00
580-131369-6	AF-RHMW02-WGN01LF-2309	Water	09/07/23 10:45	09/08/23 14:00
580-131369-7	AF-RHMW02-WGFD01LF-2309	Water	09/07/23 10:45	09/08/23 14:00

1

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Chain of Custody Record

UNITED AMB, DLB-48903434

Client Information		Sampler: <u>Gavin Mura</u>		Lab PM: <u>Elaine Walker</u>		Carrier Tracking No(s):	
Client Contact:		Phone: <u>808 987-3201</u>		E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>		State of Origin: <u>Hawaii</u>	
Company: <u>AECOM</u>		Address: <u>1001 Bishop St, Suite 1600</u>		City: <u>Honolulu</u>		State of Origin: <u>Hawaii</u>	
State Zip: <u>Hawaii 96813</u>		Due Date Requested: <u>see subcontract</u>		TAT Requested (days): <u>Rush - 5 Day</u>		Preservation Codes:	
Phone: <u>808-954-4512 / 770-331-0794</u>		Compliance Project: <u>Δ Yes Δ No</u>		PO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchor H - Ascobic Acid I - Ice J - DI Water K - EDTA L - EDTA M - Hexane N - None O - AsNaO2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCHA W - pH 4.5 Z - other (specify)	
Email: <u>Watson_Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)</u>		Project #:		Project Name: <u>CTO N627423F0104</u>		Other:	
Site: <u>RHSF</u>		SSOW#:		Project #:		Special Instructions/Note:	
Sample Identification		Sample Date		Sample Time		Sample Type (G=comp, G=grab)	
<u>AF-HDMW225303-WGN01LF-2309</u>		<u>09/05/23</u>		<u>1055</u>		<u>G W</u>	
<u>Matrix (Wet/Dry, Solid/Liquid, etc.)</u>		<u>Matrix</u>		<u>Matrix</u>		<u>Matrix</u>	
<u>Field Filtered Sample (Yes or No)</u>		<u>Field Filtered Sample (Yes or No)</u>		<u>Field Filtered Sample (Yes or No)</u>		<u>Field Filtered Sample (Yes or No)</u>	
<u>8015C_DAI_GL_D5/2-(2-butoxyethoxy)-ethanol</u>		<u>8015C_DAI_GL_D5/2-(2-butoxyethoxy)-ethanol</u>		<u>8015C_DAI_GL_D5/2-(2-butoxyethoxy)-ethanol</u>		<u>8015C_DAI_GL_D5/2-(2-butoxyethoxy)-ethanol</u>	
Total Number of containers		<u>3</u>		Special Instructions/Note:		<u>3</u>	



Ver: 01/16/2019

Chain of Custody Record

Client Information		Sampler: Ave Aspolli		Lab PM: Elaine Walker		COC No: 2309A/EAO3	
Company: AECOM		Phone: 732-709-9951		E-Mail: Elaine.Walker@EurofinsET.com		Page: Page 1 of 1	
Address: 1001 Bishop St, Suite 1600		Due Date Requested: see subcontract		Analysis Requested		Job #:	
City: Honolulu		TAT Requested (days): Rush - 5 Day		Carrier Tracking No(s):		Preservation Codes:	
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		State of Origin: Hawaii		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 . Anchor 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 N627423F0104		Project #: 60697810		Field Filtered Sample (Yes or No)		Total Number of containers	
Site: RH5F		SSON#:		8015C_DAI_GL_D5/ 2-(2-butoxyethoxy)-ethanol		3	
Sample Identification		Sample Date		Sample Type (C=Comp, G=grab)		Matrix (Weakest, Strong, Brittle, Axi)	
AF-RH/MW-10-WGN01LF-2309		9/15/23		G		W	

Possible Hazard Identification
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Retinological
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) report standard IAT_AECOM EQUS EDD.

Empty Kit Requisitioned by: Date: _____

Requisitioned by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Ave Aspolli	9/15/23 1530	AECOM	Alex Edmunds	9/15/23 1330	AECOM
Requisitioned by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Alex Edmunds	9/15/23 1345	AECOM		9/16/23 1400	

Custody Seals Intact: Yes No **Custody Seal No.:** _____

Cooler Temperature(s) and Other Remarks: 4.8/1.9

Eurofins FGS, Seattle
 5755 8th Street East
 Tacoma, WA 98424

Chain of Custody Record

UNITED AWD: **aw-489163434**



Client Information		Sampler:	Jacharya V B		Lab PM:	Elaine Walker	
Client Contact:		Phone:	4084380688		E-Mail:	M.Elaine.Walker@EurofinsET.com	
Company:		Due Date Requested:	see subcontract		Carrier Tracking No(s):		
Address:		TAT Requested (days):	Flush - 5 Day		State of Origin:		
City:		Compliance Project:	Δ Yes Δ No		Job #:		
State, Zip:		PO #:			COG No:		
Hawaii 96813		W/O #:			2309AFEAO7		
Phone:		Project #:	60697810		Page:		
808-954-4512 / 770-331-0794		SSOW#:			Page 1 of 1		
Email:		Site:	RHSF		Preservation Codes:		
Wilson Taji (wilson.taji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Project Name:	CTO N627423F0104		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - H2SO4 F - MeOH G - Anhydrous H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2SO4 Q - Na2S2O3 R - Na2S2O8 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MeCN W - pH 4.5 Z - other (Specify)		
AF-FHMMW225401-WGN01B-2309		Sample Date:	9/11/23	Sample Time:	1250	Sample Type (C=Comp, G=grab)	G
		Matrix (Water, Soild, Brittan, Adu)			Preservation Code:	W	
		Field Filtered Sample (Yes or No)			MS/MSD (Yes/No)		
		8015C_DAI_GL_D5/ 2-(2-butoxyethoxy)-ethanol					
		Total Number of containers				3	
		Special Instructions/Note:	<p><i>Handwritten:</i> 9/11/23</p> <p><i>Handwritten:</i> 9/16/23</p>				
		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				
		Deliverable Requested: I, II, III, IV, Other (Specify)	<input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other (Specify)				
		Empty Kit Requisitioned by:	<input type="checkbox"/> Yes <input type="checkbox"/> No				
		Requisitioned by:	Jacharya V B	Date/Time:	09/16/23	Company:	AECOM
		Requisitioned by:	Miranda DeCarms	Date/Time:	09/10/23	Company:	AECOM
		Custody Seals Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
		Custody Seal No.:	4849				

Eurofins FGS, Seattle
 5755 8th Street East
 Tacoma, WA 98424

Chain of Custody Record

UNITED ANB: 016-489403434



Client Information		Sampler: AVIC ASP111	Lab P/N:	Carrier Tracking No(s):	COC No: 2309AFEA05
Client Contact:		Phone: (732) - 749 - 0951	E-Mail: Elaine Walker	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: Δ Yes Δ No			
Phone: 808-954-4512 / 770-331-0794		PO #:			
Email: Watson_Tanj[redacted]@aecom.com / Mark Kromis (mark.kromis@aecom.com)		W/O #:			
Project Name: CIO N6274223F0104		Project #:			
Site: RHSF		SSOW#:			
		Field Filtered Sample (Yes or No)			
		8015C_DAI_GL_D5/ 2-(2-butoxyethoxy)-ethanol			
		Total Number of containers			
		Special Instructions/Note:			
		Preservation Codes:			
		A - HCL		M - Hexane	
		B - NaOH		N - None	
		C - Zn Acetate		O - AsNaO2	
		D - Nitric Acid		P - Na2O4S	
		E - Nitrous Acid		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:			

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (Water, Sealed, Overstain, Britanic Acid)	Preservation Code	Field Filtered Sample (Yes or No)	Special Instructions/Note
AF-FHMMW12A-WGN01LF-2309	9/7/23	0940	G	W	N	X	3
AF-FHMMW12A-WGFDD1LF-2309	9/7/23	0940	G	W	N	X	3
<i>Sample</i> 9/9/23							

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify) **4 report standard TAT. AECOM EQUIS EDD.**

Prelim data (Level for 2)=see TAT above. DOD Stage

Special Instructions/QC Requirements: DOD QSM project.

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

Return To Client Disposal By Lab Archive For _____ Months

Endov Kit Relinquished by: **AVIC ASP111** Date: **9/12/23** Time: **1145** AECOM
 Relinquished by: **Elie Shimatsu** Date/Time: **9/7/23 1345** Company: **AECOM**
 Relinquished by: **Elie Shimatsu** Date/Time: _____ Company: _____
 Custody Seals Intact: **Custody Seal No.:** _____ Cooler Temperature(s) and Other Remarks: _____

Chain of Custody Record



Client Information		Company: AECOM	Address: 1001 Bishop St, Suite 1600 Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson_Tanjil@aecom.com / Mark_Kronis@aecom.com	Project Name: CTO N627423F0104	Site: RSHF	Sampler: <i>S. Wilson</i>	Phone: <i>808-286-3810</i>	Lab P/N: Elaine Walker	E-Mail: M.Elaine.Walker@EurofinsET.com	Carrier Tracking No(s): UNITED AMB: 010-489034134	FedEx	State of Origin: Hawaii	COC No: 2309AFE01	Page: 1 of 1	Job #: 1400	
Analysis Requested		Due Date Requested: See sub/contract	TAT Requested (days): Rush - 5 Day	Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	WO #:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Solid, O=Other, B=Bi-Tissue As-All)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8015C_DAI_GL_DS/ 2-(2-butoxyethoxy)-ethanol						
AF-RHMMW2-WGN01L-F-2309	<i>9/7/25</i>	<i>1045</i>	G	W	<i>9/7/25</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X							
AF-RHMMW2-WGF001L-F-2309	<i>9/7/25</i>	<i>1045</i>	G	W	<i>9/7/25</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X							
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		Prelim data (Level for 2)=see TAT above. DOD Stage 4 report standard TAT. AECOM EQHS EDD.		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								
Relinquished by: <i>Sylvia Wilson</i>		Date/Time: <i>9/17/25</i>	Time: <i>1330</i>	Company: AECOM	Received by: <i>Miranda Detarino</i>	Date/Time: <i>9/17/25</i>	Time: <i>1330</i>	Company: AECOM								
Relinquished by: <i>Miranda Detarino</i>		Date/Time: <i>9/17/25</i>	Time: <i>1345</i>	Company: AECOM	Received by: <i>[Signature]</i>	Date/Time: <i>9/18/25</i>	Time: <i>1400</i>	Company: <i>3/8/6/19</i>								
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature: <i>4</i> °C and Other Remarks:												



Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-131369-1

Login Number: 131369

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	



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-131369-1

Login Number: 131369

List Number: 2

Creator: Johnson, Corey M

List Source: Eurofins Savannah

List Creation: 09/13/23 04:28 PM

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	