

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813
Generated 4/6/2023 1:33:37 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-125379-1

Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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: 580-125379-1

Job ID: 580-125379-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-125379-1

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.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs 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

Six samples were received on 3/30/2023 1:00 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 2.2° 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-RHMW16-WGN01LF-2303W4 (580-125379-1), AF-RHMW10-WGN01LF-2303W4 (580-125379-2), AF-HDMW225303-WGN01LF-2303W4 (580-125379-3), AF-RHMW225401-WGN01B-2303W4 (580-125379-4), AF-RHMW12A-WGN01LF-2303W4 (580-125379-5) and AF-RHMW12A-WGFD01LF-2303W4 (580-125379-6) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 04/05/2023.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-125379-1

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: 580-125379-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Lab Sample ID: 580-125379-1

Date Collected: 03/27/23 13:50

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 00:35	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: 580-125379-1

Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Lab Sample ID: 580-125379-2

Date Collected: 03/28/23 12:55

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 00:58	1

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

Client Sample Results

Client: AECOM

Job ID: 580-125379-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Lab Sample ID: 580-125379-3

Date Collected: 03/28/23 10:20

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 01:21	1

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

Client Sample Results

Client: AECOM

Job ID: 580-125379-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Lab Sample ID: 580-125379-4

Date Collected: 03/29/23 10:35

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 01:45	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: 580-125379-1

Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Lab Sample ID: 580-125379-5

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 02:08	1

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

Client Sample Results

Client: AECOM

Job ID: 580-125379-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Lab Sample ID: 580-125379-6

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 02:31	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: 580-125379-1

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

Lab Sample ID: MB 680-771309/11
Matrix: Water
Analysis Batch: 771309

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			04/04/23 15:14	1

Lab Sample ID: LCS 680-771309/5
Matrix: Water
Analysis Batch: 771309

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	20.6		mg/L		103	50 - 150

Lab Sample ID: LCSD 680-771309/6
Matrix: Water
Analysis Batch: 771309

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	22.0		mg/L		110	50 - 150	7	50

Lab Sample ID: 580-125379-2 MS
Matrix: Water
Analysis Batch: 771309

Client Sample ID: AF-RHMW10-WGN01LF-2303W4
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 M	20.0	27.2		mg/L		136	50 - 150

Lab Sample ID: 580-125379-2 MSD
Matrix: Water
Analysis Batch: 771309

Client Sample ID: AF-RHMW10-WGN01LF-2303W4
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 M	20.0	25.2		mg/L		126	50 - 150	8	50

Lab Chronicle

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

Job ID: 580-125379-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Lab Sample ID: 580-125379-1

Date Collected: 03/27/23 13:50

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 00:35

Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Lab Sample ID: 580-125379-2

Date Collected: 03/28/23 12:55

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 00:58

Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Lab Sample ID: 580-125379-3

Date Collected: 03/28/23 10:20

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 01:21

Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Lab Sample ID: 580-125379-4

Date Collected: 03/29/23 10:35

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 01:45

Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Lab Sample ID: 580-125379-5

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 02:08

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Lab Sample ID: 580-125379-6

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 02:31

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 580-125379-1

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
Project/Site: Red Hill - AFFF Assessment Sampling


Job ID: 580-125379-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-125379-1	AF-RHMW16-WGN01LF-2303W4	Water	03/27/23 13:50	03/30/23 13:00
580-125379-2	AF-RHMW10-WGN01LF-2303W4	Water	03/28/23 12:55	03/30/23 13:00
580-125379-3	AF-HDMW225303-WGN01LF-2303W4	Water	03/28/23 10:20	03/30/23 13:00
580-125379-4	AF-RHMW225401-WGN01B-2303W4	Water	03/29/23 10:35	03/30/23 13:00
580-125379-5	AF-RHMW12A-WGN01LF-2303W4	Water	03/27/23 11:25	03/30/23 13:00
580-125379-6	AF-RHMW12A-WGFD01LF-2303W4	Water	03/27/23 11:25	03/30/23 13:00

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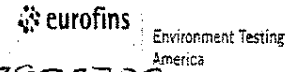
Chain of Custody Record

Un-Filed AME 016 73973782

Client Information		Sampler: <i>Nate Hogsten</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2303W4AFE06																															
Client Contact:		Phone: <i>809-473-0325</i>		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		<table border="1"> <tr> <td colspan="2">Job #: <i>125379</i></td> </tr> <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>				Job #: <i>125379</i>		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:	
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J - DI Water	V - MCAA																																						
K - EDTA	W - pH 4-5																																						
L - EDTA	Z - other (specify)																																						
Other:																																							
City: Honolulu				TAT Requested (days): Rush - ASAP																																			
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 (W=water, S=solid, O=organic, A=Al, ET=Tissue, A=Al)	Field Filled Sample (Yes or No)				Matrix MS Method (Yes or No)				Total Number of Containers																									
AF-RHMW16-WGN01LF-2303W4		<i>3/27/23</i>	<i>1350</i>	<i>G</i>	<i>W</i>	<input checked="" type="checkbox"/> <i>N</i> <input checked="" type="checkbox"/> <i>N</i> <input checked="" type="checkbox"/> <i>X</i>				<input checked="" type="checkbox"/> <i>3</i>																													
				Preservation Code:		<input checked="" type="checkbox"/> <i>A</i>				Special Instructions/Note:																													
										 <p>580-125379 Chain of Custody</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				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				<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 EQUIS EDD				Special Instructions/QC Requirements: DOD QSM project.																																	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																																	
Relinquished by: <i>Nate Hogsten</i>		Date/Time: <i>3/27/23 1505</i>		Company: AECOM		Received by: <i>James Mason</i>		Date/Time: <i>3/27/23 1505</i>		Company: AECOM																													
Relinquished by: <i>James Mason</i>		Date/Time: <i>3/29/23 1330</i>		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: <i>3/30/23 1300</i>		Company:																													
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																													
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>2.2/2.2</i>																																			

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

Chain of Custody Record



United AWS 016-73973782

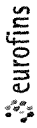
Client Information		Sampler: TESSA MURPHY		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2303W4AFEAO3		
Client Contact:		Phone: 375-382-5209		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1		
Company: AECOM				PWSID:		Analysis Requested				
Address: 1001 Bishop St. Suite 1600				Due Date Requested: see subcontract						
City: Honolulu				TAT Requested (days): Rush - ASAP		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)				
State, Zip: Hawaii 96813				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone: 808-954-4512 / 770-331-0794				PO #:		Field Filtered Sample (Yes or No)				
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)				WO #:						Matrix (W=water, S=solid, O=soil/sediment, A=AA) (BT=Bottom, AA=)
Project Name: CTO N6274223F0104				Project #: 60697810		8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol				
Site: RHSF				SSOW#:						Total Number of Containers
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix					
AF-RHMW10-WGN01LF-2303W4		3/28/23	1255	G	W	N	N	X		
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)						
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT AECOM EQUIS FDD		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:				
Relinquished by: <i>Tessa Murphy</i>		Date/Time: 3/28/23 1357		Company: AECOM		Received by: <i>Brittany Taminez</i>		Date/Time: 3/28/23 1357		Company: AECOM
Relinquished by: <i>Brittany Taminez</i>		Date/Time: 3/29/23 1350		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: 3/29/23 1300		Company:
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.2/2.2						

Chain of Custody Record

United AWB 016 73973782

Client Information		Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): <i>73973782</i>		CDC No: 2303W4AFE07	
Client Contact:		Phone: <i>402-871-5712</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1	
Company: AECOM		PWSID:		Analysis Requested				Job #:	
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		 Analysis Requested 3/29/23 				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:	
City: Honolulu		TAT Requested (days): Rush - ASAP							
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)		WC #:							
Project Name: CTO N6274223F0104		Project #: 60697810		Field Filtered Sample (Yes or No)		Total Number of Containers		Special Instructions/Note:	
Site: RH5F		SSOW#:		8015C_DAL_GL_DS_2 (2-butoxyethoxy)-ethanol					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	
AF-RHMW225401-WGN01B-2303W4		3/29/23		1035		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					
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUS EDD		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client		<input checked="" type="checkbox"/> Disposal By Lab	
						<input type="checkbox"/> Archive For		Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>Andy Young</i>		Date/Time: 3/29/23 1314		Company: AECOM		Received by: <i>Alex Edmonds</i>		Date/Time: 3/29/23 1310	
Relinquished by: <i>Alex Edmonds</i>		Date/Time: 3/29/23 1330		Company: AECOM		Received by:		Date/Time: 3/30/23 1200	
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:				2.2/2.2	

Chain of Custody Record



Un-Aed DWB 01673973782

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:					
Company: AECOM		Elaine Walker		FedEx		2303W4AFEAO6					
Address: 1001 Bishop St. Suite 1600		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1					
City: Honolulu		PWSID:		Job #:							
State, Zip: Hawaii 96813		Due Date Requested: see subcontract		Analysis Requested:		Preservation Codes:					
Phone: 808-954-4512 / 770-331-0794		TAT Requested (days): Rush - ASAP				M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify)					
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Project Name: CTO N6274223F0104		Project #: 60697810		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Site: RH5F		SSOW#:		Total Number of Containers: 3		Special Instructions/Note:					
Sample Identification	AF-RHMW16-WGN01LF-2303W4	Sample Date	3/23/23	Sample Time	12:58	Sample Type (C=Comp, G=grab)	G	Matrix (W=Water, S=Soil, O=wastewater, B=Bottom, J=Jelly)	W	Preservation Code:	
<p>Possible Hazard Identification</p> <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 <p>Deliverable Requested I II III IV Other (specify)</p> <p>Empty Kit Relinquished by _____ Date: _____</p> <p>Relinquished by _____ Date/Time: 3/23/23 5:55 Company: AECOM</p> <p>Relinquished by _____ Date/Time: 3/30/23 18:00 Company: _____</p> <p>Relinquished by _____ Date/Time: _____ Company: _____</p>											
<p>Custody Seals Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Custody Seal No. 2-2/2-2</p> <p>Cooler Temperature(s) °C and Other Remarks:</p>											



580-125379 Chain of Custody

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

Special Instructions/QC Requirements DOD QSM project.
 4 report standard TAT - AECOM EQUIS EDD.



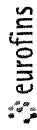
Chain of Custody Record

United AWS 016-73973782

Client Information Client Contact: TESSA MAZEPAY Phone: 975-582-5209 Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com		Carrier Tracking No(s): 2303W4FEA03 State of Origin: Hawaii Page: Page 1 of 1 Job #:	
Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com		PWSID: Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SOW#:	
Project Name: CTO N6274223F0104 Site: RH5F		Analysis Requested 15015_PAL_GL_DS/2-(2-butoxyethoxy)-ethanol Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> A Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Total Number of Containers <input checked="" type="checkbox"/> 3 Special Instructions/Note:	
Sample Identification AF-RHMW10-WGN01LF-2303W4 Sample Date: 3/25/23 Sample Time: 1255 Sample Type: G Matrix: W Preservation Code:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify) Other:	
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) Prelim data (Level 1 or 2)-see TAT above DoD Stage 4 report standard TAT - AECOM/EQUIS EDD.			
Empty Kit Relinquished by Relinquished by: Tessa Mazepay Relinquished by: Tessa Mazepay Relinquished by: Tessa Mazepay Date: 3/25/23 1357 Date/Time: 3/25/23 1300 Date/Time:			
Custody Seals Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No: 2-2/2-2 Cooler Temperature(s) °C and Other Remarks:			



Chain of Custody Record



Wanted AWB 016 73973782

Client Information Client Contact: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: watson.tanji@aecom.com / Mark Kromis (mark.kromis@aecom.com) Project Name: CTO N6274223F0104 Site: RH5F		Lab PM: Elaine Walker E-Mail: Elaine.Walker@EurofinsET.com Camer Tracking No(s): 73973782 State of Origin: Hawaii Page: Page 1 of 1 Job #:	
Due Date Requested: See subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSOW#:		Analysis Requested Total Number of Containers: 3	
Sample Date: 3/29/23 Sample Time: 1:30 PM Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=organic, B=biological, P=pesticide, A=air):		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes 85C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol	
Sample Identification AF-RHMW225401-WGN01B-2303W4		Special Instructions/Note: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify) Other:	
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) Prelim data (Level 1 or 2) - see TAT above DoD Stage 4 report standard TAT - AECOM EQUIS EDD			
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Andy Young</i>		Date/Time: 3/29/23 13:4	
Relinquished by:		Date/Time: 3/30/23 12:00	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 2.2/2.2	



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

Chain of Custody Record



En "Comment" Testing
LMA, Co

Client Information		Sampler	Lab P/N:	Carrier Tracking No(s):	COG No:
Client Contact:		Phone:	E-Mail	FedEx	2303W4AFEAD5
Company: AECOM		PWSID		State of Origin	Page: 1 of 1
Address: 1001 Bishop St. Suite 1600		Due Date Requested		Hawaii	Page 1 of 1
City: Honolulu		See subcontract		Job #:	
State: Zip: Hawaii 96813		TAT Requested (day(s):		Preservation Codes:	
Phone: 808-954-4512 / 770-331-0794		Rush - ASAP		A - HCL	
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		B - NaOH	
Project Name: CTO N6274223F0104		WC #:		C - Zn Acetate	
Site: RHSF		Project #:		D - Nitric Acid	
		60697810		E - NaHSO4	
		SSOW#:		F - MeOH	
				G - Amchlor	
				H - Ascorbic Acid	
				I - Ice	
				J - DI Water	
				K - EDTA	
				L - EDA	
				M - Hexane	
				N - None	
				O - AsNaO2	
				P - Na2OAS	
				Q - Na2SO3	
				R - Na2S2O3	
				S - H2SO4	
				T - TSP Dodecyl/drate	
				U - Acetone	
				V - MCAA	
				W - pH 4.5	
				Z - other (specify)	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sealed, Grab, Aerial)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
AF-RHMMW12A-WGN01LF-2303W4	3/21		G	W	X	X	3	
AF-RHMMW12A-WGFD01LF-2303W4	3/21		G	W	N	X	3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested I II III IV Other (specify) _____
 Prelim data (Level 1or2)=see TAT above DOD Stage _____
 4 report standard TAT AECOM EQUIS EDD _____

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

Special Instructions/QC Requirements DOD QSM project.

Empty Kit Relinquished by	Date/Time	AECOM	Time	Method of Shipment	Date/Time
Relinquished by _____	Date/Time _____	_____	_____	_____	Date/Time _____
Relinquished by _____	Date/Time _____	_____	_____	_____	Date/Time _____

Relinquished by _____ Date/Time _____ Company _____
 Received by _____ Date/Time _____ Company _____
 Cooler Temperature/C Seal/Other Remarks: _____

Custody Seals Intact: _____ Custody Seal No _____

5/20/15 22/22 Ver-01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-125379-1

Login Number: 125379

List Number: 2

Creator: Johnson, Corey M

List Source: Eurofins Savannah

List Creation: 03/31/23 07:08 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?	N/A	
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	

