



ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813
Generated 4/13/2023 9:50:11 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-125690-1

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
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(253)248-4972



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Case Narrative

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

Job ID: 580-125690-1

Job ID: 580-125690-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-125690-1

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

Four samples were received on 4/6/2023 1:50 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 5.3° 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-RHMW225401-WGN01B-2304W1 (580-125690-1), AF-HDMW225303-WGN01LF-2304W1 (580-125690-2), AF-RHMW10-WGN01LF-2304W1 (580-125690-3) and AF-RHMW10-WGFD01LF-2304W1 (580-125690-4) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 04/12/2023.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-125690-1

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

Job ID: 580-125690-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW225401-WGN01B-2304W1

Lab Sample ID: 580-125690-1

Date Collected: 04/05/23 09:00

Matrix: Water

Date Received: 04/06/23 13:50

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			04/12/23 04:53	1

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

Client Sample Results

Client: AECOM

Job ID: 580-125690-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2304W1

Lab Sample ID: 580-125690-2

Date Collected: 04/04/23 10:15

Matrix: Water

Date Received: 04/06/23 13:50

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			04/12/23 05:17	1

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

Client Sample Results

Client: AECOM

Job ID: 580-125690-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW10-WGN01LF-2304W1

Lab Sample ID: 580-125690-3

Date Collected: 04/04/23 13:00

Matrix: Water

Date Received: 04/06/23 13:50

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			04/12/23 05:40	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: 580-125690-1

Client Sample ID: AF-RHMW10-WGFD01LF-2304W1

Lab Sample ID: 580-125690-4

Date Collected: 04/04/23 13:00

Matrix: Water

Date Received: 04/06/23 13:50

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			04/12/23 06:03	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: 580-125690-1

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

Lab Sample ID: MB 680-772684/9
Matrix: Water
Analysis Batch: 772684

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			04/11/23 16:23	1

Lab Sample ID: LCS 680-772684/5
Matrix: Water
Analysis Batch: 772684

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	18.0		mg/L		90	50 - 150

Lab Sample ID: LCSD 680-772684/6
Matrix: Water
Analysis Batch: 772684

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	17.6		mg/L		88	50 - 150	2	50

Lab Sample ID: 580-125690-3 MS
Matrix: Water
Analysis Batch: 772684

Client Sample ID: AF-RHMW10-WGN01LF-2304W1
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	17.1		mg/L		85	50 - 150

Lab Sample ID: 580-125690-3 MSD
Matrix: Water
Analysis Batch: 772684

Client Sample ID: AF-RHMW10-WGN01LF-2304W1
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	18.7		mg/L		93	50 - 150	9	50

Lab Chronicle

Client: AECOM

Job ID: 580-125690-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW225401-WGN01B-2304W1

Lab Sample ID: 580-125690-1

Date Collected: 04/05/23 09:00

Matrix: Water

Date Received: 04/06/23 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	772684	JCK	EET SAV	04/12/23 04:53

Client Sample ID: AF-HDMW225303-WGN01LF-2304W1

Lab Sample ID: 580-125690-2

Date Collected: 04/04/23 10:15

Matrix: Water

Date Received: 04/06/23 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	772684	JCK	EET SAV	04/12/23 05:17

Client Sample ID: AF-RHMW10-WGN01LF-2304W1

Lab Sample ID: 580-125690-3

Date Collected: 04/04/23 13:00

Matrix: Water

Date Received: 04/06/23 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	772684	JCK	EET SAV	04/12/23 05:40

Client Sample ID: AF-RHMW10-WGFD01LF-2304W1

Lab Sample ID: 580-125690-4

Date Collected: 04/04/23 13:00

Matrix: Water

Date Received: 04/06/23 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	772684	JCK	EET SAV	04/12/23 06:03

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: 580-125690-1

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: 580-125690-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-125690-1	AF-RHWMW225401-WGN01B-2304W1	Water	04/05/23 09:00	04/06/23 13:50
580-125690-2	AF-HDMW225303-WGN01LF-2304W1	Water	04/04/23 10:15	04/06/23 13:50
580-125690-3	AF-RHMW10-WGN01LF-2304W1	Water	04/04/23 13:00	04/06/23 13:50
580-125690-4	AF-RHMW10-WGFD01LF-2304W1	Water	04/04/23 13:00	04/06/23 13:50

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


Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: <i>Nate Hagote</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): <i>AV03</i>	COC No: 2304W1AFEAD07																												
Client Contact:		Phone: <i>804-875-0525</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">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 - EDA</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 - EDA	Z - other (specify)	Other:	
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)		WO #:																															
Project Name: GTO N6274223F0104		Project #: 60697810																															
Site: RH5F		SSDW#:																															
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Seawater, Oil, Tissue, AAR)	Field Filtered Sample (Yes or No)	Field Filtered Matrix (Yes or No)	Field Filtered Solvent (Yes or No)	Total Number of Containers	Special Instructions/Note:																							
AF-RHMW225401-WGN01B-2304W1		4/5/23	0900	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 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>W. Tanji</i>		Date/Time: 4/5/23 1210	Company: AECOM		Received by: <i>Miranda DeGarmo</i>		Date/Time: 4/5/23 1210	Company: AECOM																									
Relinquished by: <i>Miranda DeGarmo</i>		Date/Time: 4/5/23 1355	Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: 04/08/23 17:50	Company:																									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>5-7</i>																													



Chain of Custody Record

Client Information		Lab PM: Elaine Walker		Carrier Tracking No(s): <u>AJ03</u>		COC No: <u>2304W1AFE07</u>		
Client Contact:		Phone: <u>164 7 6533</u>		FedEx: <u>016-1368561</u>		Page: <u>1 of 1</u>		
Company: AECOM		E-Mail: <u>M.Elaine Walker@EurofinsET.com</u>		State of Origin: <u>Hawaii</u>		Job #:		
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		Analysis Requested				
City: Honolulu		TAT Requested (days): Rush - ASAP						
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:				
Phone: 808-954-4512 / 770-331-0794		PO #:						
Email: <u>Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)</u>		WO #:		Total Number of containers				
Project Name: <u>CTO N627423F0104</u>		Project #: <u>60697810</u>						
Site: <u>RHSF</u>		SSOW#:		Special Instructions/Note:				
Sample Identification		AF-RHMW225401-WGN01B-2304W1						
 580-125690 Chain of Custody		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	15c 8015c_DAL_GL_DS/2-(2-butylhexyloxy)-ethanol
				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) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements: <u>DOD QSM project.</u> 4 report standard IAI, AECOM, EQUIS, EDD.				
Deliverable Requested: <u>I II III, IV Other (specify)</u>		Prelim data (Level 1 or 2) = see TAT above DoD Stage <u>4</u> report standard IAI, AECOM, EQUIS, EDD.						
Empty Kit Relinquished by		Date:		Method of Shipment:				
Relinquished by <u>W</u>		Date/Time: <u>4/23 1210</u>		Received by <u>Miranda DeGarcia</u>				
Relinquished by <u>Miranda DeGarcia</u>		Date/Time: <u>4/15/23 1355</u>		Received by <u>JK</u>				
Relinquished by		Date/Time:		Received by				
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>5-7</u>				



Chain of Custody Record



Client Information 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 Project Name: CTO N6274223F0104 Site: RHSE		Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com PWSID:		Sampler: TESSA MURPHY Phone: 178-582-5209		Carrier Tracking No(s): AWB 2304W1AFE04 FedEx 016-1368551 State of Origin: Hawaii Page 1 of 1 Job #:		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 X - EDTA Y - Other Z - other (specify)	
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		Special Instructions/Note:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other:		Special Instructions/Note:	
Sample Identification AF-HDMW225303-WGND01LF-2304W1		Sample Date: 4/14/23 Sample Time: 1015 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=oil, B=BTissue, A=Air):		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
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 Date: 4/14/23 Sample Time: 1015 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=oil, B=BTissue, A=Air):		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Deliverable Requested I, II, III, IV, Other (specify)		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Empty Kit Relinquished by:		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Relinquished by: Tessa Murphy Relinquished by: James Pason Relinquished by:		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Relinquished by:		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	
Custody Seal No		Date: 4/14/23 Date/Time: 4:15:18 Date/Time: 10:55		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:		Special Instructions/Note:	



Cooler Temperature(s) °C and Other Remarks: 5.9

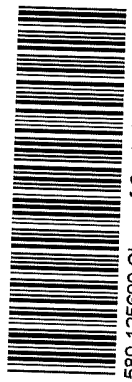
5.3

016-13668561

Client Information		Sampler: FSSA M AMY		Lab PM: Elaine Walker		COC No: 2304W1AFEA03	
Client Contact:		Phone: 078-382-5209		E-Mail: M.Elaine.Walker@EurofinsET.com		Page: Page 1 of 1	
Company: AECOM		Address: 1001 Bishop St. Suite 1600		State of Origin: Hawaii		Job #:	
City: Honolulu		Due Date Requested: See subcontract		Analysis Requested			
State, Zip: Hawaii 96813		TAT Requested (days): Rush - ASAP					
Phone: 808-954-4512 / 770-331-0794		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		85150_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Total Number of containers: 3			
Email: Watson.Tanji@aeocom.com / Mark.Kromis@aeocom.com		PO #: 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: RH5F		SSOW#:					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, A=air)	Preservation Code:	Special Instructions/Note:	
AF-RHMW10-WGN01LF-2304W1	4/4/23	1300	G	W		3	
AF-RHMW10-WGFD01LF-2304W1	4/4/23	1300	G	W		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 1 or 2) - see TAT above DoD Stage 4 report standard IAT - AECOM EQUIS EDD							
Empty Kit Reinquished by				Date:			
Reinquished by: BOB TESSA MURPHY		Date/Time: 4/4/23 1330		Company: AECOM		Date/Time: 4/4/12 1550	
Reinquished by: J MPS MASON		Date/Time: 4/5/23 1355		Company: AECOM		Date/Time: 04/06/23 13:50	
Reinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seal Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Custody Seal No			
Cooler Temperature(s) °C and Other Remarks: S-3 S-3							

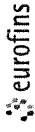


Chain of Custody Record

Client Information Client Contact: <u>1. Luke Hogsten</u> Phone: <u>704-303-033</u>		Lab PWT: <u>Elaine Walker</u> E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>		Carrier Tracking No(s): <u>AU03B</u> FedEx # <u>016-13668561</u> State of Origin: <u>Hawaii</u>		COC No: <u>2304W1AEEA07</u> Page: <u>Page 1 of 1</u> Job #:	
Due Date Requested: <u>see subcontract</u> TAT Requested (days): <u>Rush - ASAP</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #:		WO #:	
Project #: <u>60697810</u> SOW#:		Matrix: <u>W</u> (W=water, S=solid, O=oil, A=air)		Sample Type: <u>G</u> (C=Comp, G=grab)		Sample Time: <u>1:40</u>	
Sample Date:		Preservation Code:		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sample Identification: <u>AF-RHMW225401-WGN01B-2304W1</u>		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Site: <u>RHSF</u>		Matrix:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Barcode:  580-125690 Chain of Custody		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
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 Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Deliverable Requested: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other (specify)		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Empty Kit Relinquished by:		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Relinquished by: <u>Miranda DeGarcia</u>		Sample Date: <u>4/15/23</u>		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Relinquished by: <u>Miranda DeGarcia</u>		Sample Date: <u>4/15/23</u>		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Relinquished by: <u>Miranda DeGarcia</u>		Sample Date: <u>4/15/23</u>		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Custody Seal No.		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	
Cooler Temperature(s) °C and Other Remarks: <u>5-7</u> <u>5-7</u>		Sample Date:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):	



Chain of Custody Record



DLG-13668561

Client Information Client Contact: <u>Jessa Murphy</u> Phone: <u>178-382-5400</u> PWSID:		Lab P/M: <u>Elaïne Walker</u> E-Mail: <u>M.Elaïne Walker@EurofinsEI.com</u> State of Origin: <u>Hawaii</u>		COC No: <u>2304W1AFEAO3</u> Page: <u>Page 1 of 1</u> Job #:	
Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #:		Analysis Requested 8015C_DAL_GL_D5f(2-butylethoxy)-ethanol		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: <u>Watson.Tanji@aeacom.com</u> / <u>Mark.Kromis@aeacom.com</u> Project Name: <u>CTO N6274223F0104</u> Site: <u>RHSF</u>		Sample Date: <u>4/1/23</u> Sample Time: <u>1300</u> Sample Type (C=Comp, G=grab): <u>G</u> Matrix (W=Water, S=solid, O=waterfall, B=Bottom, A=Air): <u>W</u> Preservation Code:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: <u>3</u>	
Sample Identification AF-RHMW10-WGN01LF-2304W1 AF-RHMW10-WGFD01LF-2304W1		Sample Date: <u>4/1/23</u> Sample Time: <u>1300</u> Sample Type (C=Comp, G=grab): <u>G</u> Matrix (W=Water, S=solid, O=waterfall, B=Bottom, A=Air): <u>W</u> Preservation Code:		Special Instructions/Note: <u>100 4/4/23</u>	
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 III IV Other (specify) <u>4 report standard IAL AECOM EQUS FDD</u> Prelim data (Level 1 or 2) - see TAT above DoD Stage <u>4</u>					
Empty Kit Relinquished by:					
Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/1/23 1350</u>		Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/15/23 1355</u>		Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/15/23 1350</u>	
Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/15/23 1355</u>		Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/15/23 1350</u>		Relinquished by: <u>Jessa Murphy</u> Date/Time: <u>4/15/23 1350</u>	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>S-3</u> <u>S-3</u>	



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-125690-1

Login Number: 125690

List Number: 1

Creator: Presley, Kim A

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
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.	N/A	
Samples are received within Holding Time (excluding tests with immediate HTs)	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-125690-1

Login Number: 125690

List Number: 2

Creator: Johnson, Corey M

List Source: Eurofins Savannah

List Creation: 04/08/23 02:53 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	