



ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM

1001 Bishop Street
Honolulu, Hawaii 96813

Generated 5/10/2023 2:39:18 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-126798-1

Eurofins Seattle

Job Notes

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

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

Authorization



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Authorized for release by
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Case Narrative

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

Job ID: 580-126798-1

Job ID: 580-126798-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-126798-1

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

The samples were received on 05/03/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers 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-RHMW17S-WGN01LF-2304W4 (580-126798-1), AF-RHMW17S-WQEB01-2304W4 (580-126798-2), AF-RHMW17D-WGN01LF-2304W4 (580-126798-3), AF-RHMW17D-WQFB01-2304W4 (580-126798-4) and AF-RHMW17-WGN01LF-2304W4 (580-126798-5) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/07/2023.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-126798-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
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: 580-126798-1

Client Sample ID: AF-RHMW17S-WGN01LF-2304W4

Lab Sample ID: 580-126798-1

Date Collected: 04/28/23 08:56

Matrix: Water

Date Received: 05/03/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 10:17	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Client Sample Results

Client: AECOM

Job ID: 580-126798-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17S-WQEB01-2304W4

Lab Sample ID: 580-126798-2

Date Collected: 04/28/23 07:50

Matrix: Water

Date Received: 05/03/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 11:27	1

1

2

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Client Sample Results

Client: AECOM

Job ID: 580-126798-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17D-WGN01LF-2304W4

Lab Sample ID: 580-126798-3

Date Collected: 04/28/23 12:30

Matrix: Water

Date Received: 05/03/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 11:50	1

1

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Client Sample Results

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

Job ID: 580-126798-1

Client Sample ID: AF-RHMW17D-WQFB01-2304W4

Lab Sample ID: 580-126798-4

Date Collected: 04/28/23 10:50

Matrix: Water

Date Received: 05/03/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 12:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Client Sample Results

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

Job ID: 580-126798-1

Client Sample ID: AF-RHMW17-WGN01LF-2304W4

Lab Sample ID: 580-126798-5

Date Collected: 04/28/23 10:25

Matrix: Water

Date Received: 05/03/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 12:36	1

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QC Sample Results

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

Job ID: 580-126798-1

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

Lab Sample ID: MB 680-777342/18
Matrix: Water
Analysis Batch: 777342

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

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/07/23 04:05	1

Lab Sample ID: LCS 680-777342/12
Matrix: Water
Analysis Batch: 777342

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	19.1		mg/L		96	50 - 150

Lab Sample ID: LCSD 680-777342/13
Matrix: Water
Analysis Batch: 777342

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	19.3		mg/L		97	50 - 150	1	50

Lab Sample ID: 580-126798-1 MS
Matrix: Water
Analysis Batch: 777342

Client Sample ID: AF-RHMW17S-WGN01LF-2304W4
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	20.0	18.3		mg/L		92	50 - 150

Lab Sample ID: 580-126798-1 MSD
Matrix: Water
Analysis Batch: 777342

Client Sample ID: AF-RHMW17S-WGN01LF-2304W4
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	20.0	20.3		mg/L		102	50 - 150	10	50

Lab Chronicle

Client: AECOM

Job ID: 580-126798-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17S-WGN01LF-2304W4

Lab Sample ID: 580-126798-1

Date Collected: 04/28/23 08:56

Matrix: Water

Date Received: 05/03/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777342	GEM	EET SAV	05/07/23 10:17

Client Sample ID: AF-RHMW17S-WQEB01-2304W4

Lab Sample ID: 580-126798-2

Date Collected: 04/28/23 07:50

Matrix: Water

Date Received: 05/03/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777342	GEM	EET SAV	05/07/23 11:27

Client Sample ID: AF-RHMW17D-WGN01LF-2304W4

Lab Sample ID: 580-126798-3

Date Collected: 04/28/23 12:30

Matrix: Water

Date Received: 05/03/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777342	GEM	EET SAV	05/07/23 11:50

Client Sample ID: AF-RHMW17D-WQFB01-2304W4

Lab Sample ID: 580-126798-4

Date Collected: 04/28/23 10:50

Matrix: Water

Date Received: 05/03/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777342	GEM	EET SAV	05/07/23 12:13

Client Sample ID: AF-RHMW17-WGN01LF-2304W4

Lab Sample ID: 580-126798-5

Date Collected: 04/28/23 10:25

Matrix: Water

Date Received: 05/03/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777342	GEM	EET SAV	05/07/23 12:36

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: 580-126798-1

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
- 12

Sample Summary

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

Job ID: 580-126798-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-126798-1	AF-RHMW17S-WGN01LF-2304W4	Water	04/28/23 08:56	05/03/23 10:30
580-126798-2	AF-RHMW17S-WQEB01-2304W4	Water	04/28/23 07:50	05/03/23 10:30
580-126798-3	AF-RHMW17D-WGN01LF-2304W4	Water	04/28/23 12:30	05/03/23 10:30
580-126798-4	AF-RHMW17D-WQFB01-2304W4	Water	04/28/23 10:50	05/03/23 10:30
580-126798-5	AF-RHMW17-WGN01LF-2304W4	Water	04/28/23 10:25	05/03/23 10:30

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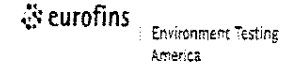
Chain of Custody Record

Client Information		Sampler: Ave Aspili		Lab Pk: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2304W4AFE12			
Client Contact		Phone: (732) 799-9957		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1			
Company: AECOM		Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		Analysis Requested		Job #: _____			
City: Honolulu		State, Zip: Hawaii 96813		TAT Requested (days): Rush - 5 Day				Preservation Codes:			
Phone: 808-954-4512 / 770-331-0794		Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				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 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 Z - other (specify)		Other:	
Project Name: CTO N6274223F0104		Project #: 60697810		PO #:				Field Filtered Sample (Yes or No)		Total Number of Containers	
Site: RHSF		SSOW#:		WO #:				Prelim (MSP) (Yes/No)		Special Instructions/Note:	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=oil, T=Thru, A=Air)			
AF-RHMW17S-WGN01LF-2304W4		4/28/23		0850		G W		N N X			
AF-RHMW17S-WQEB01-2304W4		4/28/23		0750		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: DOD QSM project			
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS FDD.		Empty Kit Relinquished by: _____		Date: _____		Time: _____			
Relinquished by: Ave Aspili		Date/Time: 4/28/23 1330		Company: AECOM		Relinquished by: Alex Edmonds		Date/Time: 4/28/23 1330			
Relinquished by: Alex Edmonds		Date/Time: 5/3/23 1300		Company: AECOM		Relinquished by: _____		Date/Time: 5/3/23 1030			
Relinquished by: _____		Date/Time: _____		Company: _____		Relinquished by: _____		Date/Time: _____			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: 2.2/2.0		_____		_____			



2.2/2.0
5/3/23

Chain of Custody Record



Client Information		Sampler: Avie Aspili		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2304W4AFE10									
Client Contact		Phone: (732) 799-9951		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		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Field Filled Sample (Yes or No)</div> <table border="1"> <tr><td style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: x-small;">8016C_DA_GL_DBF2-(p-butylethoxy)-ethanol</td><td style="text-align: center;">A</td></tr> </table> </div>				8016C_DA_GL_DBF2-(p-butylethoxy)-ethanol	A	Preservation Codes:							
8016C_DA_GL_DBF2-(p-butylethoxy)-ethanol	A																
City: Honolulu		TAT Requested (days): Rush - 5 Day						A - HCL		M - Hexane							
State, Zip: Hawaii 96813		Compliance Project: Δ Yes Δ No						B - NaOH		N - None							
Phone: 808-954-4512 / 770-331-0794		PO #:		C - Zn Acetate		O - AsNaO2											
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:		D - Nitric Acid		P - Na2O4S											
Project Name: CTO N6274223F0104		Project #: 60697810		E - NaHSO4		Q - Na2SO3											
Site: RHSF		SSOW#:		F - MeOH		R - Na2S2O3											
Sample Identification				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=organic, B=Bio-Tissue, A=Air)		Field Filled Sample (Yes or No)		Total Number of Containers		Special Instructions/Note	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)													
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Deliverable Requested: I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS EDD.				Special Instructions/QC Requirements: DOD QSM project.									
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:									
Relinquished by: Avie Aspili		Date/Time: 4/28/23 1330		Company: AECOM		Received by: Nick DeDionigi		Date/Time: 4/28/23 1330		Company: AECOM							
Relinquished by: Alex Edwards		Date/Time: 5/11/23 1300		Company: AECOM		Received by: [Signature]		Date/Time: 5/3/23 1030		Company: [Blank]							
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.2/2.0													

Chain of Custody Record

Client Information		Sampler AWE Aspili	Lab PM: Elaine Walker	Carrier Tracking No(s) FedEx	COC No 2304W4AFE12					
Client Contact:		Phone (732) 799-9951	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page Page 1 of 1					
Company AECOM			PWSID:	Job #						
Address 1001 Bishop St Suite 1600		Due Date Requested see subcontract		Analysis Requested						
City Honolulu		TAT Requested (days) Rush - 5 Day		<div style="border: 1px solid black; padding: 5px;"> </div>						
Slate 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 RHFS		SSOW#		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)						
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
		Preservation Code								
AF-RHMW17S WGN01LF-2304W4	4/28/23	0530	G	W	N	N	X		3	
AF-RHMW17S-WQEB01-2304W4	4/28/23	0700	G	W	N	N	X		3	
 580-126798 Chain of Custody										
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM EQUIS EDD.		Special Instructions/QC Requirements DOD QSM project.				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:				
Relinquished by: AWE Aspili		Date/Time: 4/28/23 1330		Company: AECOM		Received by: Alex Edmonds		Date/Time: 4/28/23 1330		Company: AECOM
Relinquished by: Alex Edmonds		Date/Time: 5/3/23 1300		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: 5/3/23 1030		Company:
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
<input type="checkbox"/> Custody Seals Intact		Custody Seal No		Cooler Temperature(s) °C and Other Remarks. 2.4/2.2 5/3/23						
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										

Ver: 01/16/2019

2.2/2.0

Chain of Custody Record

Client Information		Sampler: <u>Avie Aspili</u>	Lab PM: <u>Elaine Walker</u>	Carrier Tracking No(s): <u>FedEx</u>	COC No: <u>2304W4AFE11</u>						
Client Contact:		Phone: <u>(832) 999-9957</u>	E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>	State of Origin: <u>Hawaii</u>	Page: <u>Page 1 of 1</u>						
Company: <u>AECOM</u>		PWSID:	Analysis Requested								
Address: <u>1001 Bishop St Suite 1600</u>		Due Date Requested: <u>see subcontract</u>	<table border="1" style="width:100%; height: 100%;"> <tr><td style="width:10px;">Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8015C_DAL_GL_D5/ 2-(2-butoxyethoxy)-ethanol</td><td></td></tr> </table>			Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8015C_DAL_GL_D5/ 2-(2-butoxyethoxy)-ethanol	
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Perform MS/MSD (Yes or No)											
8015C_DAL_GL_D5/ 2-(2-butoxyethoxy)-ethanol											
City: <u>Honolulu</u>		TAT Requested (days): <u>Rush - 5 Day</u>									
State Zip: <u>Hawaii 96813</u>		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: <u>808-954-4512 / 770-331-0794</u>		PO #									
Email: <u>Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)</u>		WO #									
Project Name: <u>CTO N6274223F0104</u>		Project #: <u>60697810</u>									
Site: <u>RHSF</u>		SSOW#	Job # 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:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_D5/ 2-(2-butoxyethoxy)-ethanol	Total Number of Containers	Special Instructions/Note:		
			Preservation Code								
AF RHMW17D-WGN01LF-2304W4	4/28/23	1230	G	W	N	N	X	3			
AF-RHMW17D-WQFB01-2304W4	4/28/23	1050	G	W	N	N	X	3			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard IAT, AECOM, EQulS EDD.			Special Instructions/QC Requirements DOD QSM project.						
Empty Kit Relinquished by:		Date	Time	Method of Shipment.							
Relinquished by: <u>Avie Aspili</u>		Date/Time: <u>4/28/23 1330</u>	Company: <u>AECOM</u>	Received by: <u>Alex Edmonds</u>		Date/Time: <u>4/28/23 1330</u>	Company: <u>AECOM</u>				
Relinquished by: <u>Alex Edmonds</u>		Date/Time: <u>4/28/23 1300</u>	Company: <u>AECOM</u>	Received by: _____		Date/Time: <u>5/3/23 1030</u>	Company: _____				
Relinquished by:		Date/Time: <u>5/1/23</u>	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: <u>2.2/2.0</u>						

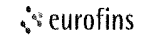
Ver: 01/16/2019



Eurofins FGS, Seattle

5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <i>Avie Aspioti</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No. 2304W4AFE10																				
Client Contact:		Phone: <i>(322) 799 9951</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		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol</td> <td rowspan="5"> <i>3/2/23</i> <i>11/8/23</i> </td> <td rowspan="5"> Total Number of containers 3 </td> </tr> <tr> <td>City: Honolulu</td> <td>TAT Requested (days): Rush - 5 Day</td> <td></td> </tr> <tr> <td>State/Zip: Hawaii 96813</td> <td>Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td></td> </tr> <tr> <td>Phone: 808-954-4512 / 770-331-0794</td> <td>PO #</td> <td></td> </tr> <tr> <td>Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)</td> <td>WO #</td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol	<i>3/2/23</i> <i>11/8/23</i>	Total Number of containers 3	City: Honolulu	TAT Requested (days): Rush - 5 Day		State/Zip: Hawaii 96813	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Phone: 808-954-4512 / 770-331-0794	PO #		Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)	WO #		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:	
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Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)	WO #																											
Project Name: CTO N6274223F0104		Project #: 60697810																										
Site: RH5F		SSOW#																										
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:																		
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Relinquished by: <i>Alex Edmonds</i>		Date/Time: <i>5/1/23 1300</i>		Company: <i>AECOM</i>		Received by: <i>[Signature]</i>		Date/Time: <i>5/3/23 1030</i>		Company:																		
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>2.2/2.0</i>																								

Ver: 01/16/2019



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-126798-1

Login Number: 126798

List Number: 2

Creator: Drake, Victoria

List Source: Eurofins Savannah

List Creation: 05/05/23 11:37 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Emily Wengrowski

From: Abbott, Katie <katie.abbott@aecom.com>
Sent: Thursday, May 4, 2023 12:04 PM
To: Emily Wengrowski; Landers, Brant; Anthony, Jason; Kromis, Mark; KaaihiliChoy, Terri Ann; Tanji, Watson
Subject: RE: Eurofins Environment Testing Northwest, LLC Sample Login Confirmation files from 580-126798 Red Hill - AFFF Assessment Sampling

EXTERNAL EMAIL*

Please correct the collection date to 4/28.

Thanks,
Katie

From: Emily Wengrowski <emily.wengrowski@et.eurofinsus.com>
Sent: Wednesday, May 3, 2023 5:51 PM
To: Landers, Brant <Brant.Landers@aecom.com>; Anthony, Jason <Jason.Anthony@aecom.com>; Abbott, Katie <katie.abbott@aecom.com>; Kromis, Mark <Mark.Kromis@aecom.com>; KaaihiliChoy, Terri Ann <Terri.Choy@aecom.com>; Tanji, Watson <watson.tanji@aecom.com>
Subject: Eurofins Environment Testing Northwest, LLC Sample Login Confirmation files from 580-126798 Red Hill - AFFF Assessment Sampling

Hello,

Attached, please find the Sample Confirmation files for job 580-126798; Red Hill - AFFF Assessment Sampling

Receipt

The samples were received on 5/3/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2^o C.

Please feel free to contact me or your PM, Marie Walker, if you have any questions.

Thank you.

Emily E Wengrowski
Project Manager Assistant

Eurofins Seattle

E-mail: emily.wengrowski@et.eurofinsus.com
www.eurofinsus.com/env



Reference: [580-481804]
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

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