1

PREPARED FOR

Attn: Terri Choy AECOM 1001 Bishop Street Honolulu, Hawaii 96813

Generated 5/18/2023 12:13:11 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

ANALYTICAL REPORT

JOB NUMBER

580-127168-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



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

M. Elaine Walker

Generated 5/18/2023 12:13:11 PM

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

3

4

5

7

9

A 6

a a

Client: AECOM

Laboratory Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Definitions	5
Client Sample Results	
QC Sample Results	10
Chronicle	11
Certification Summary	12
Sample Summary	13
Chain of Custody	14
Receint Checklists	20

_

6

R

9

10

Case Narrative

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127168-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-127168-1

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 5/11/2023 10:00 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 4.2° 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-HDMW225303-WGN01LF-2305W2 (580-127168-1), AF-RHMW10-WGN01LF-2305W2 (580-127168-2), AF-RHMW12A-WGN01LF-2305W2 (580-127168-3) and AF-RHMW12A-WGFD01LF-2305W2 (580-127168-4) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/14/2023.

The continuing calibration verification (CCV) associated with batch 680-778520 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

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

3

4

5

6

_

9

10

. .

Definitions/Glossary

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

 Qualifier
 Qualifier Description

 M
 Manual integrated compound.

 Q
 One or more quality control criteria failed.

 U
 Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision Level Concentration (Radiochemistry)

Extincted Potential Initial Potential Potential

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

Detection Limit (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

Eurofins Seattle

5/18/2023

Page 5 of 20

J

U

8

9

10

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2305W2 Lab Sample ID: 580-127168-1

Date Collected: 05/09/23 10:11 Matrix: Water

Date Received: 05/11/23 10:00

Analyte	Result Qualifier	LOQ	DL Unit	D	Prepared	Analyzed	Dil Fac	
2-(2-Butoxyethoxy)ethanol	30 ILOM	5.0	1.1 ma/l			05/14/23 02:22		

4

ວ

7

_

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW10-WGN01LF-2305W2 Lab Sample ID: 580-127168-2

Date Collected: 05/09/23 12:20 Matrix: Water

Date Received: 05/11/23 10:00

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)											
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed			
2-(2-Butoxyethoxy)ethanol	3.0	UQ	5.0	1.1	mg/L			05/14/23 03:55			

А

5

Dil Fac

6

0

9

10

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW12A-WGN01LF-2305W2 Lab Sample ID: 580-127168-3

Date Collected: 05/09/23 10:15

Date Received: 05/11/23 10:00

Analyte	Result Qualifier	LOQ	DL Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	30 UMO	5.0	1.1 mg/l			05/14/23 04:18	

А

4

6

8

9

10

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW12A-WGFD01LF-2305W2 Lab Sample ID: 580-127168-4

Date Collected: 05/09/23 10:15 Matrix: Water

Date Collected: 05/09/23 10:15 Matrix: Water Date Received: 05/11/23 10:00

Analyte	Result Qualifier	LOQ	DL Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	30 UMQ	5.0	1.1 mg/l			05/14/23 04:41	1

3

4

5

7

10

QC Sample Results

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

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

Lab Sample ID: MB 680-778520/9 **Client Sample ID: Method Blank Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 778520

	MB	МВ							
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxvethoxv)ethanol	3.0	U	5.0		ma/L			05/13/23 17:04	1

Lab Sample ID: LCS 680-778520/1005 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 778520

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2-(2-Butoxyethoxy)ethanol	20.0	21.4		mg/L	_	107	50 - 150	

Lab Sample ID: LCSD 680-778520/6 **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA

Analysis Batch: 778520

/ many one Datem : 1 colo									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-(2-Butoxyethoxy)ethanol	20.0	23.6		mg/L		118	50 - 150	10	50

Lab Chronicle

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2305W2

Lab Sample ID: 580-127168-1 Date Collected: 05/09/23 10:11 **Matrix: Water**

Date Received: 05/11/23 10:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY		1	778520	GEM	EET SAV	05/14/23 02:22

Client Sample ID: AF-RHMW10-WGN01LF-2305W2

Lab Sample ID: 580-127168-2

Date Collected: 05/09/23 12:20 **Matrix: Water**

Date Received: 05/11/23 10:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number A	nalyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY		1	778520 G	SEM	EET SAV	05/14/23 03:55

Client Sample ID: AF-RHMW12A-WGN01LF-2305W2

Lab Sample ID: 580-127168-3

Date Collected: 05/09/23 10:15 **Matrix: Water**

Date Received: 05/11/23 10:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY		1	778520	GEM	EET SAV	05/14/23 04:18

Client Sample ID: AF-RHMW12A-WGFD01LF-2305W2 Lab Sample ID: 580-127168-4

Date Collected: 05/09/23 10:15 **Matrix: Water**

Date Received: 05/11/23 10:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Ty	ре Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY		1	778520	GEM	EET SAV	05/14/23 04:41

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Laboratory: Eurofins Savannah

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

ANAB		Program Dept. of Defense ELAP	Identification Number	Expiration Date 09-22-24
The following analyte the agency does not	•	port, but the laboratory is not	certified by the governing authority.	This list may include analytes for wh
Analysis Method	Prep Method	Matrix	Analyte	

5

0

8

9

10

Eurofins Seattle

Sample Summary

Client: AECOM Job ID: 580-127168-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
580-127168-1	AF-HDMW225303-WGN01LF-2305W2	Water	05/09/23 10:11	05/11/23 10:00	
580-127168-2	AF-RHMW10-WGN01LF-2305W2	Water	05/09/23 12:20	05/11/23 10:00	
580-127168-3	AF-RHMW12A-WGN01LF-2305W2	Water	05/09/23 10:15	05/11/23 10:00	
580-127168-4	AF-RHMW12A-WGFD01LF-2305W2	Water	05/09/23 10:15	05/11/23 10:00	

1

3

4

5

6

0

a

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

& eurofins | Environment Testing America

Client Information	Sampler:	É VILLA	h()U)	Lab I Elal	PM: ne Wa	ilker							ler Tra Ex	cking N	io(s):			COC No: 2305W2AFE	A04		
Client Contect:	Phone: 224 - (645-7	57 L	E-Ma M.E		Walke	r@Eu	rolins	ET.co	om		Stat	e of Or vail	gin:				Page: Page 1 of 1			
Company: AECOM		· · · · · · · · · · · · · · · · · · ·	PWSID:						Ana	lysis	Re	que	sted					Job #:			
Address:	Due Date Reques	led:	L		- 68	3	T			-		╅┈	1					Preservation	Codes:		
1001 Bishop St. Suite 1600	see subcontrac	1														$/\!\!/$		A - HCL	M - H	ехале	
City: Honolulu	TAT Requested (c	leys): Rush - (Day			١.									$/\!\!/$		100	B - NaOH C - Zn Acetate D - Nitric Acid		one sNaO2 a2O4S	
State, Zip: Hawail 96813	Compliance Proje	ct: A Yes	ΔNo			age .								Χ			13	E - NaHSO4 F - MeOH	Q-N	a2SO3 a2S2O3	
Phone: 808-954-4512 / 770-331-0794	PO #:				ĵ.	Į į					۱	113			l			G - Amchior H - Ascorbic Aci	S-H	2SO4 SP Dodec	ahydrale
Emall: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:				10 0	axyet.				12	M.	V					\$18	i - ice J - Di Waler	V - M		·
Project Name: CTO N6274223F0104	Project #: 60697810				nple (Yes or (Yes or No	(2-but			V	0	1						ntain	K - EDTA L - EDA	W - p Z - ot	H 4-5 her (spec	ity)
Site: RHSF	SSOW#:	······				05/2			Ι.	》							ot co	Other:			
1 11 101				T	2]]	ı	\mathcal{L}	\ <u>.</u>	1				-		4				
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wowster, Suspild, Onwaste/off, ST-Tissue, ArAir)	Field Filter	8015C_DAL_GL_DS/ 2-(2-butoxyethoxy)		1									Total Number	Special	Instruct	ions/No	ote:
	\sim	\langle	Preserve	ation Code:	XX] A			(i)	ं	113				86 B		IX	AR ROBERTS			20 PM (CV 2)
AF-HDMW225303-WGN01LF-2305W2	5/4/13	1011	G	w	N N	х			\bot							1	3				
					Щ							ļ		_	_	igg	Ł				
											<u> </u>	_		4	#	1	- 4				
					4					<u> </u>	<u> </u>	_	\Box	_			W.				
							_	丰	1	1_	<u> </u>	<u> </u>									
			12/20					_		1_	<u> </u>		!								
	<i>D</i>	7 10	altr			1-1					<u> </u>										
		\mathcal{U}									<u> </u>										
							_ _		1		ļ			580-	1271	68 C	hair	of Custody			
					<u></u>	لبلا				<u> </u>	ــــــــــــــــــــــــــــــــــــــ										
Possible Hazard Identification ■ Non-Hazard Flammable	Unknown	Padiol	oolcal		Sa [mpie □ _{Re}	vispo Itum 1	osar ('o Clir	A ree ent	may		asse: Dispo	sal B)	rsam Lab	pies		etain Arci	ed longer that nive For		in) onths	
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Lev	el 1or2)=se	TAT abov		e Sp	ecial I	nstruc	tions/	QC F	lequi	reme	nts:	DOD	2SM	proje	ct.				eren.	
Empty Kit Relinquished by:	4 report standar	TAT. AEC Date:	OM EQUIS		Time:								Method	of Shi	pment	:					
	Date/Time: ケ/キ/セ3	124	0	Company AECOM	,	Recei	ved by:	yTom	W2			,		Da 0	18/7 im 5/09	123	, 12	140	Compa	ώγ Μ	
Relinquished by Partitary Toming	Date/Time: 123	130		Company A (COM			ved by:		1		7			Dв	te/Tim	5/	1//	23	Compa	nv	00
Relinquished by:	Date/Time:			Company		Recel	verti by:			/	·			Ďа	te/Tim	6:/	7	1	Compa	iny	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Coole	r Tempe	rature	(s) °C (and O	ther Ro	emark:	s:					1.2/4-	8	Üncea	10
																		ŧ	ver: 0	1/16/20	17

🔆 eurofins

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

Chain of Custody Record

Environment Testing
America

	Sampler:	vi .]	7		PM:									king No	o(s):			COC No:		
Client Information Client Contact:	Sampler:	alum	ND	Ela E-M	ine W	alker						Fed	Ex of Orl					2305W2AFEA0	3	
Crent Contact:	808-393	6660	2		aii: Elaine	Walk	er@E	urofin	nsET	.com		Hav		gin:				Page: Page 1 of 1		
Company: AECOM			PWSID:						An	alys	is Re	ques	ted					Job#;		
Address: 1001 Bishop St, Suite 1600	Due Date Reques see subcontrac				2000	(4) (4)										1		Preservation Co		
City: Honolulu	TAT Requested (d		5 Day	····	1											1	1	A - HCL B - NaOH C - Zn Acelate	M - Hexana N - None O - AsNaO2	
Slate, Zip: Hawali 96913	Compliance Proje	ci: A Yes	ΔNo		-	thano									1			D - Nilde Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
Phone: 808-954-4512 / 770-331-0794	PO#:				9	- (xo						1	3/				1	F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S2O3 S - H2SO4 T - TSP Dodecah	nvdesta
Email: Watson Tanji (watson.tanji	WO#:	***************************************			Sample (Yes or No)	axyet					L	$\sqrt{\chi}$					2	l - Ice J - Di Water	U - Acetone V - MCAA	iyorata
Project Name: CTO N6274223F0104	Project #: 60697810				3	(2-bu					10	\forall					ŧ.	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
Site: RHSF	SSOW#:				3	76				W	X						8 6	Other:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)		Field Filtered		/		1								Total Number	Special in	structions/Not	e;
		\sim		ation Code:	XΥ	Q A			_			\vdash			4 4	2	XI.			1 30 40
AF-RHMW10-WGN01LF-2305W2	5/9/23	120	G	W	N	<u>I X</u>											3			
					Ш											_		, 		
					П									7						
					П											7. 2.	X.			
		1	مدا																	
		05	04/10		+															
		A-															A.			
					П	T														\neg
					П									T		1				
Possible Hazard Identification	<u></u>				Si	mple	Disp	osai	(A1	e ma	y be a	sses	sed if	samp	les ar	e reta	ine	d longer than 1 /e For	month)	
Non-Hazard Flammable Skin Irritant Poison B			logical	5 6 3		ЩА	eturn	To Ci	llent		2000	Dispos	al By	Lab	۱	- A	rchiv	ve For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Lev 4 report standare	TAT AFC	OM FOUL	ve. Dod Stag SEDD	je iSp	ecial	instru	ctions	s/QC	Hequ	ireme									
Empty Kit Relinquished by:		Date:			Time:							٨	fethod	ol Ship	ment:					
Religioushed by: Portany Toming Relinquished by: Portany Toming Relinquished by:	Date/Time: 5/4/23		00	Company AECOM		1		Han	7	pMI	wz	2		1.	95/2	sal	23	1300	VECOV Combany	
Relinquished by: Britany Tomines	05 09 13		3/S	Company HECOM			lved by	\mathcal{L}		V	\angle	, 			/Time:	5	//	1/23	Company [0 <i>ರ</i> '	ن د
	Date/fime:			Company		Rece	lved by	:			1			Date	/Time:	7		7	Company	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Coole	r Temp	orelure	e(s) °C	And O	ther Re	marks:						4.2 4	S Ver: 01/16/2019	

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

🔆 eurofins

Environment Testing America

au defensables	Sampler: AV/L	وزمين			PM: ine V	Valker	,						erler T	rackin	g No(s):			COC No: 2305W2AFEA0	5	
Client Information Client Contact:	Phone:	ushiii -		E-M	alf:							Si	ate of	Oslgin:					Page:		
	Phone: (かなり =	1 99-99	PWSID:	M.E	laine	.Wall	ker@E	urolii					awali		-				Page 1 of 1 Job #:		
Company: AECOM			1,010,						An	alys	is R	equ	este	d	,		, ,				
Address: 1001 Bishop St. Suite 1600	Due Date Request						10										l۱		Preservation Cos A - HCL	M - Hexane	
City:	TAT Requested (d	ays):			1				M										B - NaOH C - Zn Acetete	N - None O - AsNaO2	
Honolulu	-	Rush - !	Day			7			}								I	- A.	D - Nitrie Acid	P - Na2O4S	
State, Zip: Hawaii 96813	Compliance Proje	ct: ∆ Yes	ΔNo] [į				V									E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3	
Phone:	PO#:				3	(Vet or Mg). 2-(2-butoxyethoxy)-ethanol			िरी	٦ [G - Amehlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodece	ahvdrate
808-954-4512 / 770-331-0794 Email:	WO#:				78	a §			-	1				İ				35.4	I - Ice J - Di Water	U - Acetone V - MCAA	
Walson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	Project#:				- \$					2					l		l		K - EDTA	W - pH 4-5	
Project Name: CTO N6274223F0104	60697810				Sample (Yes	9				-	4						1	Conta	L - EDA Other:	Z - other (specif	(y)
Site:	SSOW#:				Ę	7 8					- [4	(18))	\mathcal{N}				8	Other:		
RHSF	1		Sample		12	DAI GL DS/						Υ		1				喜			
			Type	Matrix (W=water,	1	ž š			ļ	İ					\ `		$ \ $	Total Number			
		Sample	(C≃comp,	Sesolid, Orwazlałoji,	el	8018C										\	ノ	8	Sanial in	structions/No	to.
Sample Identification	Sample Date	Time	G≕grab) Presente	BT=Tissue, A=Air	"	X A	-		-	1			1. 14±		130	113,77	. 2	쉿	Special III	311001101187140	
The state of the s		373.15	G	W	N	N X				\dashv	\top	+	+	1	†			3			
AF-RHMW12A-WGN01LF-2305W2	2/11/27	1015			╄			╌		-+		-		+	\vdash		 -	3			
AF-RHMW12A-WGFD01LF-2305W2	54123	1015	G	W	N	N X	4		_		_	4		+	▙		$\vdash \vdash$	3			
												_	_					2			
										_		十	十	1				. 3.			
	†				17	十					\top	\top	1	T				riin.			
			7	SPH	11	-	+		-+	_	+	\dashv	1	╅	 			4.3			
			®		₩					+	_	╬	╫	╂	├	\vdash	\dashv				
					Ц		<u> </u>			_		\bot	$oldsymbol{\perp}$	_	<u> </u>		\Box				
					11	_	-		_					<u></u>	ļ.,						
					Π,	Semn	le Dis	nass	1/A1	lee m	av be	. ass	esse	d if s	amo	ies a	re ret	tain	ed longer than	month)	
Possible Hazard Identification	Unknown	□.	ological		l.		Return				500		oosal			C			ive For	Months	
Non-Hazard Flammable Skin Irritant Poison I	Prelim data (Le	Hadi	ological e TAT sho	ve. DoD Sta	oe S	Specie	rieium il Instr	uction	ns/QC	Rec	uiren					oject.		11011	100 7 07	MOINING	
Deliverable Requested: I, II, III, IV, Other (specify)	4 report standar	d TAT. AE	COM EQUI	S EDD.		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									•	•					
													162.0		Obs.						
Empty Kit Relinguished by		Date:	140	AECOM	Tim	A. Red	celved b	y: 0 ,	مملا،	7	سراران	ำ	Met	nod of	Shipm Date/	rent: Time:	hs/	δQ	123 1240	AECOM	
Relinquished by: Aut. Acpli	712		L10				celved b		ALIVAN A		7	/_				Time:		/	23	Campany	
Relinquished by: Pontharmy Tommiz		A/23	१३०७	HEON Company				/_			Ł						<u>ग/ए</u>	4	4/		30
Relinquished by:	Date/Time:			Company		Flee	celved b	ly-		/	1				DE(e)	Time:	,	1		Company	
Sustody Seals Intact: Custody Seal No.:	<u> </u>					Сос	oler Ten	nperatu	ure(s)/	Cand	Other	Remai	rks:								
									U	,									4.2/4.	Ver: 01/16/20	19
																			1.014.	と と と と と と と と と と と と と と と と と と と	

Eurofins FGS, Seattle

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

💸 eurofins

Environment Te ting America

Company	Client Information	Sampler ໂດກປະ	E VILLA	 (ماداما	Lab I Flai	PM ne Wa	alker						rier Traci dEx	dng No(s)		COC No. 2305W2AFEA04	
Possible Hazard Identification Possible Hazard Identification		Dharas			E-Ma	all:		r@E.u	rofinol	ET con	·	Sta	te of Orlg	ln·			Page	
Preservation Codes Preserv		0-1	247 7		<u>IVI.E</u>	laine.	waike	I W E UI										
1001 Bishop St Sulle 1600		Due Date Request	ed	<u> </u>			parg			Analy	sis F	eque	sted		г т	اء	Preservation Cod	AS
Honolulu	1001 Bishop St Suite 1600	see subcontract		······································													A HCL	M Hexane
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N X 3 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Presiminate Flammable Skin Irritant Poison B Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 5 special instructions/QC Requirements DOD QSM project.	Honolulu	TAT Requested (d		Day			-										C Zn Acetate	O AsNaO2
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N X 3 S80-127168 Chain of Custody Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Deliverable Requested 1, II, III, IV, Other (specify) Prelim data (Level 10/2)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Prelim data (Level 10/2)—see TAT above DDD Stage 4 report slandard TAT. AECOM FOULS FDD.	Hawaii 96813		ct A Yes	ΔNo		1	ethan							X			E NaHSO4	Q Na2SO3
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N X 3 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Presiminate Flammable Skin Irritant Poison B Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 5 special instructions/QC Requirements DOD QSM project.		PO#				ĝ.	-(yxor					1/2					G Amchlor	
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N X 3 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Presiminate Flammable Skin Irritant Poison B Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 5 special instructions/QC Requirements DOD QSM project.		WO#				20 00	oxyet				140		11			Sia	J DI Water	U Acetone V MCAA
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N X 3 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Presiminate Flammable Skin Irritant Poison B Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 4 report slandard TAT. AECOM FOULS FDD. Presiminate (Level 102)—see TAT above DoD Stage 5 special instructions/QC Requirements DOD QSM project.						96 (%	(2-but			10	10)					ntain		W pH 4-5 Z other (specify)
Preservation Code AF-HDMW225303-WGN01LF-2305W2 S/A/13 / Oil G W N N N X 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 10/2)—see TAT above DoD Stage of the special instructions/QC Requirements DOD QSM project. Prelim data (Level 10/2)—see TAT above DDD Stage of the special instructions/QC Requirements DOD QSM project.		SSOW#				Samp	D5/2			$ \rangle$	Ø					7	Other [,]	
AF-HDMW225303-WGN01LF-2305W2 S/A/3 / Oil G W N N X 3 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Non-Hazard Flammable Skin Irritant Poison B Cmithown Flammable Skin Irritant Poison B Prelim data (Level 10/2)=see TAT above DoD Stage Prelim data (Level 10/2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project.		Sample Date		Type (C=comp, G=grab)	(W=water S=solid, O=waste/oil, BT=Tissue, A≓Air)	Field Filtered			1							X Total Number	Special Ins	structions/Note:
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Deliverable Requested I, II, III, IV, Other (specify) Prelim data (Level 1or2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project.	AF-HDMW225303-WGN01LF-2305W2	clab 7	$\widehat{(\alpha)}$			N	_	1+	+	+	$\dagger \dagger$	_	++		\vdash	3		
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS 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.	THE TIBILITY ELECTRIC	3/4/23	70"	<u> </u>	•	H	+	$\vdash \vdash$	+	+-	\vdash					1		
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS 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.						╁┼	+	\vdash	+	-	\vdash	_	++		\Rightarrow	十		
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS 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.						H	+	\vdash	-	+	\vdash	+			_	+		
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS 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.						H	-						++			†		
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS 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.				103)		-			-	t					H ir ii ii	Miller electronism	
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS FDD. 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.		0	1 1/8	lath		T					†							
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM FQUIS FDD. 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.			0			\prod					Ť							
Non-Hazard Flammable Skin Irritant Poison B Frelim data (Level 10r2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project. Return To Client Disposal By Lab Archive For Months Prelim data (Level 10r2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project.											_	580-	127168	3 Chair	of Cu	stod	A. 1884 1 884 1 884 1 884 1884 1884 1884 1884 1884 1884 1884 1884 1884 1884 1884 A. 1884 A. 1884	
Non-Hazard Flammable Skin Irritant Poison B Frelim data (Level 10r2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project. Return To Client Disposal By Lab Archive For Months Prelim data (Level 10r2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project.															L . I	L	1	
Deliverable Requested I, II, III, IV, Other (specify) Prelim data (Level 1or2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project. 4 report standard TAT. AECOM EQUIS EDD.	Possible Hazard Identification	,		la -l!														•
		Prelim data (Lev	el 1or2)=se	e TAT abov		ge S	pecial	Instruc	ctions/	QC R	equire	nents	DOD (QSM pro	oject.	Alci	nive roi	MORRIS
Initially (// Delitational Date Initial Date Initial Date	Empty Kit Relinquished by		d TAT. AEC Date	COM EQuIS	S EDD.	Time)	_					Method	of Shipm	ent:			
Relinquished by Date/Time: 5/9/23 1240 Company Received by Different Supply 23, 1240 Company AECOM Brifferent Supply 23, 1240 AECOM		Date/Time:	100	10		<u> </u>	Rece	lived by	Jane	nui -				Date/	Time 12.2	. 1	240	Company
Relinquished by Company Date/Time Date/Time Company Company Date/Time Company Comp	Relinquished by Oscillaria Town	Date/Time			Gompany					1	_	1		Date/	Time	111	12	
Relinquished by Date/Time Company Received by Date/Time Company	Relinquished by:		130				Rece	eived by		_	1			Date/	Time /	44	07	
Custody Seals Intact Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks 7. 24. 2							Cool	er Temp	erature	(s) °C a	ind Othe	r Rema	rks				1-2/4-8	Ver 01/16/2019

Eurofins FGS, Seattle

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

eurofins
Environment Testin.
Am rica

Client Information	Sampler St	Elwins	d'o	Lab Ela		Valke	er						Carrier edEx		g No(s)			COC No: 2305W2AFEA0	3	
Client Contact:	Sampler Tyen St Phone: 808-393	.6.607		E-M	ail:			€ Euro	finsF	T.cor	n		state o	Origin					Page Page 1 of 1		
Company	10.50 37-		PWSID [,]	120.5	T	× 114					sis I								Job #		
AECOM Address.	Due Date Request				h	100	П		T	\\	313 1	104	1031	<u> </u>	T	Т	7	\exists	Preservation Co		
1001 Bishop St Suite 1600 City·	see subcontract	ays):			1	West of the second										/			A HCL B NaOH	M Hexane N None	
Honolulu State, Zip		Rush - 5	Day				2								1/	1			C Zn Acetate D Nitric Acid	O AsNaO2 P Na2O4S	
Hawaii 96313	Compliance Projec	ct. Δ Yes	Δ No		11	4	etha												E NaHSO4 F MeOH	Q Na2SO3 R Na2S2O3	
Phone 808-954-4512 / 770-331-0794	PO#				<u>ş</u>	the state of	hoxy)					١	<u>1</u>	X					G Amchlor H Ascorbic Acid	S H2SO4 T TSP Dodeca	ahydrate
Emall. Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO#				es or	S.	loxyet					19	X						l ice J DIWater	U Acetone V MCAA	
Project Name CTO N6274223F0104	Project # 60697810			***************************************	le (Ye	io se,	8015C_DAI_GL_D5/ 2-(2-butoxyethoxy)-ethanol					² }						E I	K EDTA L EDA	W pH 4-5 Z other (speci	ify)
Site RHSF	SSOW#				Sample (Y) ası	D5/ 2			1/0	M							ъ	Other [.]		
			Sample	Matrix		NS.	텔				60							Number			
		Sample	Type (C=comp,	(W=water S=solid,	eld Filt	Perform MS	o l		1									N N			
Sample Identification	Sample Date	Time	G=grab)	O=waste/oil, BT=Tissue, A=Air	Fiel			4										Total	Special Ir	structions/No	ote:
	$\Rightarrow \leq$	$>\!\!<$		tion Code	X	~	A		_	-	\sqcup	_	1	4	4			Ц			
AF-RHMW10-WGN01LF-2305W2	5/9/23	120	G	W	Ν	N	×			<u> </u>				_	┦	<u> </u>		3	~ · ·		
					Ш					<u> </u>					1_	age Survey	*************				
					Ш								na front		and and and						
					-						, married		2								
		3.	1.0																		
		20	04/13	· · · · · · · · · · · · · · · · · · ·	_		A)CEAN														
		A	a facility of the second secon		П																
					П																
The state of the s					П		\top		<u> </u>	<u> </u>		1							×		
					П		\top		1												
Possible Hazard Identification	<u> </u>		-		_	Sam	ple E	Dispos	sal (A fee	may	be as	sess	ed if	samp	les a			ed longer than		
Non-Hazard Flammable Skin Irritant Poison B	Onknown Prelim data (Lev		ological	vo. DoD Str	200			urn To			oquire			al By		rojeci		Arch	nive For	Months	
	4 report standar	d TAT. AE					, icat 111	Struct	10113/	QU N	equire	men			·						
Empty Kit Relinquished by		Date		Company	Tir		lecelve						IVI	enioa t	of Ship	/Time		<i>x</i>		Company	
My on Skinn of	Date/Time·		300	AECOM			8	5+ ift	on	12	min	026	2			25/	ડવ	v	3 1300	Company	
Relinquished by Skirn moto Relinquished by Britany Tomines	Date/Time: 05 09 13	1	315	Company AECOM	\		leceive		ر ک	/		_				/Time		i/	11/23	Company [O	ত ত
Relinquished by	Date/fime [.]			Company			leceive				//				Date	/Time		/	<i>i</i>	Company	
Custody Seals Intact. Custody Seal No Δ Yes Δ No						С	ooler	Temper	rature((s) °C/3	nd Oth	er Rer	narks.		•				4.2/	(.8	
								-											-	Ver: 01/16/20)19

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

6	e	u	ľ	0	f	i	r	15	

Environment Testing America

Client Information	Sampler AVIE	Propils		Lab P Elain		alkei						Carr	er Trac Ex	king N	o(s)			COC № 2305W2AFEA05	5
Client Contact:	Phone (752) =	1	<u> </u>	E-Mail M.F.I.	l aine	.Wall	ker@E	urofii	nsFT.	com		State	of Ori	gin				Page [.] Page 1 of 1	
Company AECOM		r Fi Stale	PWSID								is Re	que						Job #	
Address. 1001 Bishop St Suite 1600	Due Date Request			·	T		1		T		T			T		Τ,	T	Preservation Cod	
City	see subcontract TAT Requested (d	ays)	_															A HCL B NaOH	M Hexane N None
Honolulu State, Zip:		Rush - 5	Day			-			, }								1	C Zn Acetate D Nitric Acid	O AsNaO2 P Na2O4S
Hawaii 96813 Phone	Compliance Project	ct. Δ Yes	∆ No			Į.			d	X								E NaHSO4 F MeOH	Q Na2SO3 R Na2S2O3
808-954-4512 / 770-331-0794					ĝ	, de			5	\ ا								G Amchior H Ascorbic Acid	S H2SO4 T TSP Dodecahydrate
Email Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO#				is or				-	1							2	l Ice J DI Water	U Acetone V MCAA
Project Name. CTO N6274223F0104	Project # 60697810				ple (Yes or No	(TBS OF NO)				4	U		$\setminus \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid \mid$				containers	K EDTA L EDA	W pH 4-5 Z other (specify)
Site: RHSF	SSOW#				Field Filtered Sample (16	3					of co	Other [.]	
			Sample		red	Perform MS/MSD 8015C DAI GL DS/	(`	Y.		X					
			Туре	Matrix (W=water S=solid,	Filte										1	$\ \cdot\ $	Total Number		
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	S=solid, O=waste/oil, BT=Tissue, A=Air}	Field	8015(\ /	Total	Special Ins	structions/Note:
	\geq	$\geq <$		tion Code [.]	X	4											X		
AF-RHMW12A-WGN01LF-2305W2	5/9/23	1015	G	w	ΝĮ	ا ا											3		
AF-RHMW12A-WGFD01LF-2305W2	5 With	1015	G	w	N	ν×	Ç										3		
		, , , , , , , , , , , , , , , , , , , ,												-			5		
					T								1		_				
					7	_			一	7		T	Ħ	十		1			
			(19)	3911	T						┪				1	1-	Ħ		
			-30		†	<u> </u>	+		十	T	╅			+	_	†			
					_	_			$\overline{}$		_	1	\dashv	+	+	+	\vdash		
Secretary of the second of the second					+							- 10	-		oros,	1.			
Possible Hazard Identification	Unknown	Ξ.			S		•		•	ee m					-			ed longer than 1	•
Non-Hazard Flammable Skin Irritant Poison E Deliverable Requested I, II, III, IV, Other (specify)	Prelim data (Lev	Hadio el 1or2)=se	ological e TAT abo	ve. DoD Stag	e S		Return			Reg	uirem	Dispo ents	DOD	<i>y Lab</i> QSM	proje		Arci	nive For	Months
	4 report standar	d TAT AEC	OM EQuis	S EDD											F J -				
Empty Kit Relinquished by:		Date.			Time	3							Method	t of Sh	ipment:				
Relinquished by AMC ASDIL	Date/Time: 🤇 q		240	AECOM			ceived b	λ β Ω/	alleng	(óm	WEZ			Da	ate/Tim	, 0 2	:/09	23 1240	MECOM
Relinquished by Porthorny Tommuz	Date/Time (S) 0	9/23 1	300	HECOM)		Re	ceived b	y /		-/				Da	ate/Tim	:5/	700	23	Company /じょう
Relinquished by	Date/Time:			Company		Re	ceived b	y		//	1			Da	ate/Tim	e: /	1		Company
Gustody Seals Intact: Custody Seal No						Co	oler Terr	nperati	ıre(s)	Cand	Other F	Remark:	s.	L_					
									U									4.2/4.	Ver 01/16/2019
																		4-2/4-	D

Client: AECOM Job Number: 580-127168-1

List Source: Eurofins Savannah
List Number: 2
List Creation: 05/12/23 08:15 PM

Creator: Johnson, Corey M

Radioactivity wasn't checked or is = background as measured by a survey meter. 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 True</th
Sample custody seals, if present, are intact. True The cooler or samples do not appear to have been compromised or True
The cooler or samples do not appear to have been compromised or True
1 11
tampered with.
Samples were received on ice.
Cooler Temperature is acceptable.
Cooler Temperature is recorded. True
COC is present. True
COC is filled out in ink and legible.
COC is filled out with all pertinent information.
Is the Field Sampler's name present on COC?
There are no discrepancies between the containers received and the COC. True
Samples are received within Holding Time (excluding tests with immediate True HTs)
Sample containers have legible labels.
Containers are not broken or leaking.
Sample collection date/times are provided.
Appropriate sample containers are used.
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 N/A <6mm (1/4").
Multiphasic samples are not present.
Samples do not require splitting or compositing.

N/A

Residual Chlorine Checked.