

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy AECOM 1001 Bishop Street Honolulu, Hawaii 96813 Generated 3/24/2023 12:31:51 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-124966-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424





Eurofins Seattle

Job Notes

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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

utton

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Authorized for release by Tracy Dutton, Client Relations Manager <u>Tracy.Dutton@et.eurofinsus.com</u> Designee for Marie Walker, Senior Project Manager <u>M.Elaine.Walker@et.eurofinsus.com</u> (253)248-4972

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Job ID: 580-124966-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Case Narrative

Client: AECOM Project: Red Hill - AFFF Assessment Sampling Report Number: 580-124966-1

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

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

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

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

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

RECEIPT

The samples were received on 03/20/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 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-2303W2 (580-124966-1), AF-RHMW03-WGN01LF-2303W2 (580-124966-2) and AF-RHMW02-WGN01LF-2303W2 (580-124966-3) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 03/22/2023.

The closing continuing calibration verification (CCV) associated with batch 680-769036 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. The associated samples are impacted: AF-RHMW225401-WGN01B-2303W2 (580-124966-1), AF-RHMW03-WGN01LF-2303W2 (580-124966-2), AF-RHMW02-WGN01LF-2303W2 (580-124966-3), (CCV 680-769036/27), (580-124966-A-3 MS) and (580-124966-A-3 MSD).

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

Definitions/Glossary

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

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Activity (Radiochemistry)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present

Presumptive Quality Control

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Limit of Quantitation (DoD/DOE)

Job ID: 580-124966-1

Qualifiers

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

ML MPN

MQL

NC

ND

NEG

POS

PQL PRES

QC RER

RL RPD

TEF TEQ

TNTC

GC Semi VOA Qualifier 4 **Qualifier Description** Μ 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 Duplicate Error Ratio (normalized absolute difference) DER Dil Fac **Dilution Factor** Detection Limit (DoD/DOE) DL DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Client Sample Results

Client: AECOM Project/Site: Red Hill - AFFF Assessment Sampling Job ID: 580-124966-1

5

Client Sample ID: AF-RHMW225401-WGN01B-2303W2 Lab Sample ID: 580-124966-1 Date Collected: 03/16/23 11:40 Matrix: Water Date Received: 03/20/23 10:30 Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID) Result Qualifier Analyte LOQ DL Unit D Prepared Analyzed Dil Fac 3.0 UMQ 2-(2-Butoxyethoxy)ethanol 5.0 1.1 mg/L 03/22/23 20:35 1

Client Sample Results

Job ID: 580-124966-1

Matrix: Water

Dil Fac

1

5

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

Client Sample ID: AF-RHMW03-WGN01LF-2303W2 Lab Sample ID: 580-124966-2 Date Collected: 03/16/23 12:05 Date Received: 03/20/23 10:30 Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID) Result Qualifier Analyte LOQ DL Unit D Prepared Analyzed 3.0 UMQ 2-(2-Butoxyethoxy)ethanol 5.0 1.1 mg/L 03/22/23 20:58

Client Sample Results

Job ID: 580-124966-1

5

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

Client Sample ID: AF-RHMW02-WGN01LF-2303W2 Lab Sample ID: 580-124966-3 Date Collected: 03/16/23 10:40 Matrix: Water Date Received: 03/20/23 10:30 Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID) Result Qualifier Analyte LOQ DL Unit D Prepared Analyzed Dil Fac 3.0 UMQ 2-(2-Butoxyethoxy)ethanol 5.0 1.1 mg/L 03/22/23 21:22 1

QC Sample Results

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

Job ID: 580-124966-1

5 6 7

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

Analysis Batch: 769036 MB MB MB MB MB MB Correct on the second state of the second state o	Lab Sample ID: MB 680-76 Matrix: Water													ple ID: M Prep Ty		
AnalyteResultQualifierLOQDLUnitDPreparedAnalyzedDil Fa2-(2-Butoxyethoxy)ethanol3.0U M5.01.1mg/LDPreparedAnalyzedDil FaLab Sample ID: LCS 680-769036/6 Matrix: Water Analysis Batch: 769036SpikeLCSLCSClient Sample ID: Lab Control Sample Prep Type: Total/NAnalyteAddedAddedResultQualifierUnitD%RecLimits2-(2-Butoxyethoxy)ethanol	Analysis Batch: 769036															
2-(2-Butoxyethoxy)ethanol 3.0 UM 5.0 1.1 mg/L 03/22/23 17.05 Lab Sample ID: LCS 680-769036/6 Client Sample ID: Lab Control Sample ID: LCSD 680-769036/7 Client Sample ID: Lab Control Sample ID: Lab Control Sample ID: LCSD 680-769036/7 Analyte Added Result Qualifier Unit D %Rec Lab Sample ID: LCSD 680-769036/7 Spike LCSD LCSD Client Sample ID: Lab Control Sample Du Prep Type: Total/N Matrix: Water Analyte Spike LCSD LCSD KRec Limits Analyte Spike LCSD Kee Losd Control Sample Du Prep Type: Total/N 2-(2-Butoxyethoxy)ethanol 20.0 19.8 Unit D %Rec Limits RPD Limits 2-(2-Butoxyethoxy)ethanol S80 Sample Sample Spike LCSD LCSD MS MS VRec Limits RPD Limits RPD Limits RPD Limits Client Sample ID: AF-RHMW02-WGN01LF-2303W Prep Type: Total/N Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits	-		MB	MB												
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Matrix: Water Analysis Batch: 769036 Spike Added LCS Analyte LCS Qualifier LCS Unit D %Rec 99 %Rec Limits Analyte 2-(2-Butoxyethoxy)ethanol 20.0 19.8 Client Sample ID: Lab Control Sample Du Prep Type: Total/N Lab Sample ID: LCSD 680-769036/7 Matrix: Water Analyte Spike Added LCSD 20.0 Client Sample ID: Lab Control Sample Du Prep Type: Total/N Analyte Added Spike Added LCSD 20.0 LCSD 19.1 Unit D %Rec %Rec Limits RPD 4 Limits 2-(2-Butoxyethoxy)ethanol 20.0 19.1 Client Sample ID: AF-RHMW02-WGN01LF-2303W Prep Type: Total/N Prep Type: Total/N Lab Sample ID: 580-124966-3 MS Matrix: Water Analyte Sample Spike Analyte MS MS MS %Rec View C Client Sample ID: AF-RHMW02-WGN01LF-2303W Prep Type: Total/N Lab Sample ID: 580-124966-3 MSD Matrix: Water Analyte Result Qualifier Ms MS %Rec View C Limits Lab Sample ID: 580-124966-3 MSD Matrix: Water Analysis Batch: 769036 Sample Spike Added MSD MSD MSD MSD %Rec View C Limits Lab Sample ID: 580-124966-3 MSD Matrix: Water Analysis Batch: 769036 Sample Spike Added MSD MSD MSD %Rec View C Limits	2-(2-Butoxyethoxy)ethanol		3.0	UM		5.0		1.1	mg/L					03/22/23	17:05	
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SampleSampleSpikeMSMS%RecAnalyteResultQualifierAddedResultQualifierUnitD%Rec2-(2-Butoxyethoxy)ethanol3.0U M Q20.019.2QualifierUnitD%RecLimitsLab Sample ID: 580-124966-3 MSDClient Sample ID: AF-RHMW02-WGN01LF-2303WMatrix: WaterAnalysis Batch: 769036SampleSpikeMSD%RecRPAnalyteResultQualifierAddedResultQualifierUnitD%RecRPLimitsResultQualifierAddedResultQualifierUnitD%RecRP	Matrix: Water													Prep Ty	pe: Tot	al/N/
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	Analyte 2-(2-Butoxyethoxy)ethanol Lab Sample ID: 580-12496 Matrix: Water	Result 3.0					19.2			U	ID: A	_	96	50 - 150		
	Analyte 2-(2-Butoxyethoxy)ethanol	Result 3.0 66-3 MSD Sample	U M (DQ	20.0 Spike		19.2 MSD	Clier	nt Sa	U	ID: A	_	96 RHMWC	50 - 150 02-WGN0 Prep Ty %Rec	pe: Tot	

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

Job ID: 580-124966-1

	ple ID: AF-	RHMW22540	1-WGN0	1B-2303V	V2		Lab	Sample ID: 8	
	d: 03/16/23 1 d: 03/20/23 1								Matrix: Wate
-	Batch	Batch		Dilution	Batch			Drenered	
Deser Trees			Dura			A	Lah	Prepared	
Prep Type	Туре	Method	Run	Factor	Number		Lab	or Analyzed	
Total/NA	Analysis	8015C GLY		1	769036	JCK	EET SAV	03/22/23 20:35	
Client Sam	ple ID: AF-	RHMW03-WC	GN01LF-	2303W2			Lab	Sample ID: 8	580-124966-2
Date Collecte	d: 03/16/23 1	2:05						-	Matrix: Wate
Date Receive	d: 03/20/23 1	0:30							
_	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8015C GLY		1	769036	JCK	EET SAV	03/22/23 20:58	
Client Sam	ple ID: AF-	RHMW02-W0	GN01LF-	2303W2			Lab	Sample ID: {	580-124966-3
	d: 03/16/23 1								Matrix: Wate
	d: 03/20/23 1								
_	Batch	Batch		Dilution	Batch			Prepared	
			Run	Factor	Number	Analyst	Lab	or Analyzed	
Prep Type	Type	Method							

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

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8 9 10

Laboratory: Eurofins Savannah

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

Authority ANAB	Program Dept. of Defense ELAP	L2463	Expiration Date 09-22-24
The following analytes are included in the agency does not offer certification		ertified by the governing authority.	This list may include analytes for whic

 Analysis Method
 Prep Method
 Matrix
 Analyte

 8015C GLY
 Water
 2-(2-Butoxyethoxy)ethanol

Sample Summary

Collected

03/16/23 11:40 03/20/23 10:30

03/16/23 12:05 03/20/23 10:30

03/16/23 10:40 03/20/23 10:30

Received

Matrix

Water

Water

Water

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

AF-RHMW225401-WGN01B-2303W2

AF-RHMW03-WGN01LF-2303W2

AF-RHMW02-WGN01LF-2303W2

Client Sample ID

Lab Sample ID

580-124966-1

580-124966-2

580-124966-3

Job	ID:	580-124966-1
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	9)

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Seattle		
ns FGS,	Street East	WA 98424
Eurofir	5755 8th Street	Tacoma,

Curofins Environment Testing America

· ·								
Client Information	Sampler Eli Martin		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2303W2AFEA07	
Client Contact:	Phone: 617-519-361	2	E-Mail: M.Elaine.Wal	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	<u>u u</u>	Page: Page 1 of 1	
Company: AECOM	- 	PWSID:	- - - -	Analysis Requested	equested	،	Job #:	
hop St. Suite 1600	Due Date Requested: see subcontract				<pre>C</pre>		ă –	ss: M - Hexane
	TAT Requested (days): Rush - ASAP	ASAP			1		B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: Hawaii 96813	liance Project: 🛆 Yes	Δ No			- <u>(</u>			P - Na204S Q - Na2SO3 R - Na2SO3
Phone: 808-954-4512 / 770-331-0794	:# Od			-{6xou	8/160	27	σ	S - H2SO4 T - TSP Dodecahydrate
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	:# OM		(0N)	196/X01			5	U - Acetone V - MCAA
Project Name: CTO N6274223F0104	Project #: 60697810		0 58)	ng-z)-:		1020-0000	A A	W - pH 4-5 Z - other (specify)
Site: RHSF	:#MOSS) asv	Z /90		141, 1999, 199	Other:	
		Sample M Type (C=comp, 0=	Matrix Matrix (W=water S=sold. G=wasteloll, 0=wasteloll,)) 9dmuN lsto		Ē
Sample identification	sample uate	Preservation Code:				1×	special ins	special instructions/Note:
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Possible Hazard Identification Possible Hazard Identification Non-Hazard Flammable Skin Imitant Poison B	Diknown	radiological	Sam	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Achive For Mon	e assessed if sample Disposal By Lab	les are retaine	e tained longer than 1 Archive For	month) Months
Other (specify)	Prelim data (Lev	el 1or2)=see TAT above. DoD Stage	OD Stage Spec	Special Instructions/QC Requirements: DOD QSM project.	nents: DOD QSM pro			
Empty Kit Relinquished by:	Date:		Time:		Method of Shipment:	ient:		
Relinquished by: Eli Martin	Date/Time: 03//6/23	1345 AECOM		Received by:	Date/Time	Time: //い/2ろ	134S	Company
Relinquished by:	Date/Time: S//w/2.3	1355 Company	540	Received by:	Date	J o 23	020/	Company
	1.61	Company		Received by:	Date/Time	Time		Company
Custody Seals Intact: Custody Seal No.:			<u>U</u>	Cooler Temperature(s) °C and Other Remarks:	r Remarks:	· /	0 //0	
								Ver: 01/16/2019

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Curofins Environment Testing America

Client Information	Sampler.		Lab PM: Elaine Walker	No(s):	COC No: 2303W2AFEA02
	Phone: 402-571-571	世 と し	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM		MSID:	Analysis	Analysis Requested	Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract				Preservation Codes: A - HCL M - Hexane
	TAT Requested (days): Rush - ASAP	SAP	ła		B - NaOH N - None C - Zn Acetate O - AsNaO2
p: 96813	Compliance Project: Δ Yes Δ	A No	onerite.	6	U - Nitric Acid P - NazU4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3
Phone: 808-954-4512 / 770-331-0794	PO #:			Ţ	
jaecom.com)/ Mark Kromis (mark.kromis@aecom.com)	:# OM		(oN 1		
Project Name: CTO N6274223F0104	Project #: 60697810		o sey	1)BINC	L - EDA Z - other (specify)
	SSOW#:) asw	2 	Other:
		Sample Matrix Type W=water, (C=comp, 0=wateroid,	eld Filtered Aform MS/I 15C_DAL_GL	ədmuk İsîc	
Sample Identification	Sample Date Time	G=grab) BT=TISSUE, A=A Proservation Code*			Special Instructions/Note:
AF-RHMW03-WGN01LF-2303W2	3/16/33 1205	R N	z	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
	4				
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Possible Hazard Identification Non-Hazard Chammable Skin Intlant Poison B	<u>ат</u> клоwn	radiological	Sample Disposal (A fee may	ĕΠ	stained longer than 1 month) Archive For Months
sted: I, II, III, IV, Other (specify)	Prelim data (Le A report standa	wei 1or2)=see TAT above. DoD Stage	Stage Special Instructions/QC Requirements: DOD QSM project.	ements: DOD QSM project.	
	+ report standard - A - A -		Time:	Method of Shipment:	
tours 28th	Date/Time: 2/12/13	345 Company	Received by:	Lanco 3/10/23	1 245 RECOMPANY
a Mro	123 13	66 AEC	Received by: //	Date/Time: 123	(of Company
	Date/Time:	Company	Received by	Dat ¢ /Time:	Company
Custody Seals Intact: Custody Seal No.:			Cooler Temperature () °C and Other Remarks:	her Remarks:	0.1/0.1
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lacoma, VVA 964.24				
Client Information	sampler fruch towns	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC NO: 2303W2AFEA01
	Phone: 402-871-5712	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	:CISMd	Analysis Requested	quested	Job #:
nop St. Suite 1600	Due Date Requested: see subcontract			Preservation Codes: A - HCL M - Hexane
	TAT Requested (days): Rush - ASAP	for		
State, Zip: Hawaii 96813	Compliance Project: 🛆 Yes 🛆 No	16/19-(Ą	E - NaHSO4 Ω - Na2SO3 F - MeOH R - Na2S2O3
Phone: 808-954-4512 / 770-331-0794	PO#:			P
m)/ Mark Kromis (mark kromis@aecom.com)	# OM	(ON J		1- Ice U - Acetone J - DI Water V - MCAA ビビアスカ W - 5-14 4-5
	Project #: 60697810	o səy	چ مربعاً	5
	SSOW#:) asw	er of c	Other:
	Sample Type Sample (C=comp, Time (C=comb)	Matrix Matrix Matrix Second Second Matrix Second Matrix Matrix Second Matrix Second Matrix Second Matrix Matrix Second Matrix Se	admuN IstoT	Special Instructions/Note:
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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	assessed if samples are retai	retained longer than 1 month) Archive For Months
/, Other (specify)	Prelim data (Level 10r2)=see TAT above. DoD Stage	C Stage Special Instructions/QC Requirem		
Emoty Kit Relinguished by:	4 report standard TAL AECOM FUIUS FUIU Date:	Time:	Method of Shipment:	
ue cert	Date/Time: Company 3/1/u/23 US45 AECOM	Received by: Nir Sprada	Server, 3/10/23	1345 Company
Dotement	0/23 1855	ON Received by: (1070
Reinquished by:	Date/Time: Company		Date/Time: /	Company
Custody Seals Intact Custody Seal No.: △ Yes △ No		Cooler Temberature(s) °C and Other Remarks:	temarks:	1.0/1, 0
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Eurofin	5755 8th	Tacoma

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	466	Lab	M:		ter Trackino No(s):	COC No:	
Client Information	El, / Wart'n	Elai	he Walker		FedEx	2303W2AFEA07	~
Client Contact:	Phone: 617-519-3612	E-Ma M E	E-Mail M Elaine Walker@EurofinsET com		State of Origin. Hawaii	Page: Page 1 of 1	
Company AECOM	-	-DISW4		sis Req	sted	Job #:	
Address: 1001 Bishop St. Suite 1600	Due Date Requested see subcontract					Preservation Codes: A - HCL M	les: M - Hexane
City Honolulu	TAT Requested (days). Rush - ASAP	d	Į¢			B - NaOH C - Zn Acetate	N - None O - AsNaO2
State. Zp: Hawaii 96813	Compliance Project: Δ Yes Δ No	lo	onerite.		5.	D - Nitric Acid E - NaHSO4 F - MeOH	P - Na204S Q - Na2SO3 R - Na2S2O3
Phone: 808-954-4512 / 770-331-0794	PO #:				12/9/20	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	:# OM		(0N)		\$J0	I - Ice J - DI Water	U - Acetone V - MCAA
Project Name: CTO N6274223F0104	Project #: 60697810		10 SQ <i>)</i>			K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
Site: RHSF	SSOW#:) ası	<u>\</u>		Other-	
Samula Identification	Sample Date Complete (C	Sample Matrix Type (Werwater CC=Comp, Oewasteld, G=crrah) PT-Trans Action.	Perform MSM Perform MSN 1915C_DAI_GL)	Cotal Number	Snecial In	Snecial Instructions/Note
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			$\overline{\langle}$		200-124300 UNAIN OF CUSTODY	of Custody	
Possible Hazard Identification	s Unknown Radiological	gical	Sample Dispo	He Disposal (A fee may be asse Return To Client Dispo	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month, Return To Client Disposal By Lab Achive For Mon	s tained longer than Archive For	1 month) Months
ssted I II III, IV Other (specify)	Prelim data (Lev 4 renort standar	vel 1or2)=see TAT above. DoD Sta ri TAT_AFCOM FOuilS FDD		: Requirem			
Empty Kit Relinquished by			Time.		Method of Shipment:		
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there a	Date/Time: S// w/ z	555 Company	Received by	tri	Date/Time: 23	0201	
	Date/Time:	Company	Received by		Date/Time	-	Company
Custody Seals Intact: Custody Seal No			Cooler Tem	Cooler Temberature(s) °C and Other Remarks:		0 1/0.	
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Eurofins FGS, Seattle 5755 8th Street East Tacoma, WA 98424

Chain of Custody Record

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Client Information	Sampler Arely Towne	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2303W2AFEA02
	Phone: 402-571-5712	E-Mail [.] M Elaine Walker@EurofinsET com	Drigin	Page: Page 1 of 1
Company AECOM	-GISMd	Analysis Requested		Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested see subcontract			Preservation Codes: A - HCL M - Hexane
City Honolulu	TAT Requested (days) [.] Rush - ASAP	lo		B - NAOH B - NAOH C - Zn Acetate O - AsnaO2 D - Naona
State, Zip: Hawaii 96813	Compliance Project: ∆ Yes ∆ No	nsite	63	
Phone: 808-954-4512 / 770-331-0794	PO #:	\$	Ĵ	
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:	(ON J		
Project Name: CTO N627423F0104	Project #: 60697810	0 S9Y		
Site: RHSF	:#MOSS) asv		Other ⁻
Cample Hantification	Time Completed		edmuki isto	Snarial Instructions (Note:
	X	tion Code: XX		
AF-RHMW03-WGN01LF-2303W2	3/16/23 1205 C	× z z		
	25/1/23			
	3100			
Possible Hazard Identification Non-Hazard — Flammable — Skin Irrilant — Poison B	Umknown radiological	Sample Disposal (A fee may b	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month,	etained longer than 1 month) Archive For Months
ssted I II III IV Other (specify)		Prelim data (Level 1or2)=see TAT above DoD Stage Special Instructions/QC Requirements DOD QSM project 4 montrestandard TAT AFCOM FOulS FDD		
by		Time	Method of Shipment:	
trey tours 2845	Date/Time: / 1545	Company Received by AECOM Received by AECOM	$\lambda \in - \frac{Date/Time:}{3}/\omega, - \infty$	Company 2 2 2 And And And
Relinquished by	Date/Time $2(-z)$ $1 > b$	くころ	$\overline{\beta}/20/23$	[Φ3 U Company
	Date/Time:	Company Received by:	Dat¢/Time:	Company
Custody Seals Intact: Custody Seal No		Cooler Temperature (6) °C and Other Remarks:	Remarks:	0.1/0.1

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

Chain of Custody Record

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Cleart Information	Sampler And Loung	Lab PM Flaine Walker		Carrier Tracking No(s): FedFx	COC No: 2303W2AFFA01	
Client Contact	1 100 0	E-Mail:		State of Origin:	Page:	Т
	1-211-21	M Elaine Walker@EurofinsET.com		Hawaii	Page 1 of 1	-1
Company AECOM	-DWSID-		Analysis Requested	uested	:# qor	
Address: 1001 Bishop St. Suite 1600	Due Date Requested: See Subcontract				50	
Clty Honolulu	TAT Requested (days) [.] Rush - ASAP	la		-	B NaOH N - None C - Zh Acetate O AsNaO2	
State, Zip Hawaii 96813	Compliance Project: A Yes A No	onsdfe		A		
Phome: 808-954-4512 / 770-331-0794			<u>×</u>		F - MeUH K - Na252U3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahvdrate	
Email Watson Tanji (watson.tanji@aecom com)/ Mark Kromis (mark.kromis@aecom.com)	#0M	(0N .	Ð	612 612	I - Ice J - DI Water	
Project Name: CTO N6274223F0104	Project #: 60697810	o səy	J.			
Site: RHSF	#MOSS) asv			0 Other	
Samula Manifikasiion	Sample Type Sample (C=comp.	Matrix Matrix Matrix Machine Matrix M		edmuki istoT	Special Instructions/Note:	<u> </u>
	Preserv	K				
AF-RHMW02-WGN01LF-2303W2	3/16(23 1040 6	z		6		
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Possible Hazard Identification	Bedichoridan	Sample Disp	ole Disposal (A fee may be a	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	etained longer than 1 month) Archus For Months	<u> </u>
sted. I, II III IV Other (specify)	Prelim data (Level 1or2)=see TAT above. DoD Stage	D Stage	ictions/QC Requiremen	project.		1
	4 report standard TAT. AECOM FOuIS EDD	EDD.				Т
Empty Kit Relinquished by	Date	Time		Method of Shipment:		
Relinquished by And wing agent	BaterTime: 3/16/23 1345	Company Received by AECOM	A.	LAL Y.C. JULLO	Company	
Relinquished by	113123	Company Received by	-t-J-	Date/Time 3/26/2/3	3 1070 Company	
non	Date/Time:	Company Received by		Date/Time: /	Company	<u> </u>
Custody Seals Intact Custody Seal No		Cooler Tem	Cooler Temperature(s) °C and Other Remarks	marks.	1.0/1.0	
					Ver 01/16/2019	1

Login Sample Receipt Checklist

Client: AECOM

Login Number: 124966 List Number: 1 Creator: Presley, Kim A

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	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.	N/A	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
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	

Job Number: 580-124966-1

List Source: Eurofins Seattle

Client: AECOM			Job Number: 580-124966-1
Login Number: 124966 List Number: 2 Creator: Meincke, Griffin E			List Source: Eurofins Savannah List Creation: 03/22/23 12:09 PM
Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td></td> <td></td> <td></td>			
The cooler's custody seal, if present, is intact.			
Sample custody seals, if present, are intact.			
The cooler or samples do not appear to have been compromised or tampered with.			
Samples were received on ice.			
Cooler Temperature is acceptable.			
Cooler Temperature is recorded.			
COC is present.			
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.			
Samples are received within Holding Time (excluding tests with immediate 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.			
Sample Preservation Verified.			
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs			
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").			
Multiphasic samples are not present.			
Samples do not require splitting or compositing.			
Residual Chlorine Checked.			