ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata City & County of Honolulu 630 South Beretania Street Public Service Bldg. Room 310 Honolulu, Hawaii 96843

Generated 11/22/2023 7:16:42 PM

JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-59313-2

Eurofins Eaton Analytical Pomona 941 Corporate Center Drive Pomona CA 91768-2642

Eurofins Eaton Analytical Pomona

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 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 Eaton Analytical, LLC Project Manager.

Compliance Statement

- 1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
- 2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
- 3. Test results relate only to the sample(s) tested.
- 4. This report shall not be reproduced except in full, without the written approval of the laboratory.
- 5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by Rachelle Arada, Project Manager Rachelle.Arada@et.eurofinsus.com (626)386-1106

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Definitions/Glossary

Client: City & County of Honolulu

Job ID: 380-59313-2 Project/Site: RED-HILL

Qualifiers

Subcontract

Qualifier **Qualifier Description**

This analyte was not detected.

Glossary

Abbreviation	These commonly u	sed abbreviations ma	y 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**

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 MLMinimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

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**

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count **TNTC**

Case Narrative

Client: City & County of Honolulu

Project/Site: RED-HILL

Job ID: 380-59313-2

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative 380-59313-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 8/16/2023 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 3.3°C

Subcontract Work

Methods 8015 Gas (Purgeable) LL (EAL), 8015 LL DRO/MRO/JP5/JP8: These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method 625 PAH Physis LL (EAL) + TICs: This method was subcontracted to Physis Environmental Laboratories. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

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Detection Summary

Project/Site: RED-HILL

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2

No Detections.

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2

No Detections.

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-59313-3

No Detections.

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-59313-4

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Job ID: 380-59313-2

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Client: City & County of Honolulu

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-59313-1 Date Collected: 08/14/23 11:14 **Matrix: Drinking Water**

Date Received: 08/16/23 10:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
1-Methylphenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
2-Methylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Acenaphthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Acenaphthylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benz[a]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benzo[a]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benzo[b]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benzo[e]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benzo[g,h,i]perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Benzo[k]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Biphenyl	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Chrysene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Dibenz[a,h]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Dibenzothiophene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Disalicylidenepropanediamine	ND		0.1	0.05	μg/L		08/21/23 00:00	09/24/23 04:31	1
Fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Fluorene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Naphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Phenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 04:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	56		27 - 133				08/21/23 00:00	09/24/23 04:31	1
(d10-Phenanthrene)	65		43 - 129				08/21/23 00:00	09/24/23 04:31	1
(d12-Chrysene)	75		52 - 144				08/21/23 00:00	09/24/23 04:31	1
(d12-Perylene)	72		36 - 161				08/21/23 00:00	09/24/23 04:31	1
(d8-Naphthalene)	47		25 - 125				08/21/23 00:00	09/24/23 04:31	1
Method: 8015 Gas (Purgeal	ble) LL (EAL) -	SW846 80	15B Gasoline	e Range	Organie	cs			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	MD	U	0.02		mg/L			08/17/23 17:48	1

Method: 8015 Gas (Purgeable) LL (EAL) -	SW846 80	15B Gasoline	e Range	Organi	cs			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/17/23 17:48	1
Surrogate BROMOFLUOROBENZENE	%Recovery	Qualifier	Limits 60 - 140			-	Prepared	Analyzed 08/17/23 17:48	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			08/28/23 21:31	1
JP5	ND	U	0.053		mg/L			08/28/23 21:31	1
JP8	ND	U	0.053		mg/L			08/28/23 21:31	1
MOTOR OIL	ND	U	0.053		mg/L			08/28/23 21:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOBENZENE	72		60 - 130					08/28/23 21:31	1

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Client Sample Results

Client: City & County of Honolulu

Project/Site: RED-HILL

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Date Collected: 08/14/23 11:14 Date Received: 08/16/23 10:10

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO (Continued)

%Recovery Qualifier Limits Prepared Dil Fac Analyzed HEXACOSANE 83 60 - 130 08/28/23 21:31

Client Sample ID: AIEA GULCH WELLS PUMP 2

Date Collected: 08/14/23 10:32 Date Received: 08/16/23 10:10

Lab Sample ID: 380-59313-2

Lab Sample ID: 380-59313-1

Matrix: Drinking Water

Job ID: 380-59313-2

Matrix: Drinking Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	MD		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
1-Methylphenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
2-Methylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Acenaphthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Acenaphthylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benz[a]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benzo[a]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benzo[b]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benzo[e]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benzo[g,h,i]perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Benzo[k]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Biphenyl	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Chrysene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Dibenz[a,h]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Dibenzothiophene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Disalicylidenepropanediamine	ND		0.1	0.05	μg/L		08/21/23 00:00	09/24/23 06:20	1
Fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Fluorene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Naphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Phenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/24/23 06:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
	(d10-Acenaphthene)	74		27 - 133	08/21/23 00:00	09/24/23 06:20	1	
	(d10-Phenanthrene)	82		43 - 129	08/21/23 00:00	09/24/23 06:20	1	
	(d12-Chrysene)	82		52 - 144	08/21/23 00:00	09/24/23 06:20	1	
İ	(d12-Perylene)	77		36 - 161	08/21/23 00:00	09/24/23 06:20	1	
	(d8-Naphthalene)	66		25 - 125	08/21/23 00:00	09/24/23 06:20	1	

Method: 8015 Gas (Purgeable) LL	(EAL) -	SW846 8015B	Gasoline	Range Organics
Analyte	Result	Qualifier	RL	MDL Unit

Analyte GASOLINE	Result ND	Qualifier U	RL 0.02	MDL	Unit mg/L	<u>D</u> .	Prepared	Analyzed 08/17/23 19:39	Dil Fac
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	76		60 - 140			-		08/17/23 19:39	1

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Client Sample Results

Client: City & County of Honolulu

Project/Site: RED-HILL

Client Sample ID: AIEA GULCH WELLS PUMP 2

Date Collected: 08/14/23 10:32 Date Received: 08/16/23 10:10

Lab Sample ID: 380-59313-2

Matrix: Drinking Water

Job ID: 380-59313-2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			08/28/23 21:50	1
JP5	ND	U	0.055		mg/L			08/28/23 21:50	1
JP8	ND	U	0.055		mg/L			08/28/23 21:50	1
MOTOR OIL	ND	U	0.055		mg/L			08/28/23 21:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOBENZENE	74		60 - 130					08/28/23 21:50	1
HEXACOSANE	83		60 - 130					08/28/23 21:50	1

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2 Lab Sample ID: 380-59313-3 Date Collected: 08/14/23 11:14 **Matrix: Water**

Date Received: 08/16/23 10:10

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics Analyte MDL Unit Result Qualifier RL D Analyzed Prepared Dil Fac GASOLINE ND U 0.02 mg/L 08/17/23 20:16 Surrogate %Recovery Qualifier Limits Analyzed Dil Fac Prepared BROMOFLUOROBENZENE 79 60 - 140 08/17/23 20:16

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2 Lab Sample ID: 380-59313-4 **Matrix: Water**

Date Collected: 08/14/23 10:32

Date Received: 08/16/23 10:10

Method: 8015 Gas (Purgeable)	LL (EAL) -	SW846 80	15B Gasolin	e Range	Organi	cs			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/17/23 20:53	1
Surrogate BROMOFLUOROBENZENE	%Recovery	Qualifier	60 - 140			-	Prepared	Analyzed 08/17/23 20:53	Dil Fac

Client: City & County of Honolulu

Project/Site: RED-HILL

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: BlankMatrix Prep Type: Total/NA

			Pe	rcent Surro	ogate Reco	very (Acce
		Acenapht	Phenanth	CRY	NPT	PRY
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)
109839-B1	Method Blank	88	95	92	79	92
109839-BS1	Lab Control Sample	90	95	94	84	96
109839-BS2	Lab Control Sample Dup	94	100	98	87	99

(d10-Acenaphthene) = (d10-Acenaphthene) (d10-Phenanthrene) = (d10-Phenanthrene)

CRY = (d12-Chrysene) NPT = (d8-Naphthalene) PRY = (d12-Perylene)

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: Drinking Water Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		Acenapht	Phenanth	CRY	NPT	PRY	
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)	
380-59313-1	AIEA WELLS PUMPS 1&2 (260)	56	65	75	47	72	
380-59313-2	AIEA GULCH WELLS PUMP 2	74	82	82	66	77	

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene) (d10-Phenanthrene) = (d10-Phenanthrene)

CRY = (d12-Chrysene) NPT = (d8-Naphthalene) PRY = (d12-Perylene)

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Drinking Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		BFB	
Lab Sample ID	Client Sample ID	(60-140)	
380-59313-1	AIEA WELLS PUMPS 1&2 (260)	78	
380-59313-2	AIEA GULCH WELLS PUMP 2	76	

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		BFB	
Lab Sample ID	Client Sample ID	(60-140)	
380-59313-3	TB: AIEA WELLS PUMPS 1&2 (79	
380-59313-4	TB: AIEA GULCH WELLS PUMF 2	77	
Surrogate Legend			
BFB = BROMOFLUOR	OBENZENE		

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Job ID: 380-59313-2

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		BFB	
Lab Sample ID	Client Sample ID	(60-140)	
23H135-01M	Matrix Spike	102	
23H135-01S	Matrix Spike Duplicate	106	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		BFB	
Lab Sample ID	Client Sample ID		
23VG39H05B	Method Blank		
Surrogate Legend			
BFB = BROMOFLU			

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)					
		BFB						
Lab Sample ID	Client Sample ID	(70-130)						
23VG39H05C	LCD	102						
23VG39H05L	Lab Control Sample	108						
Surrogate Legend								

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: Drinking Water Prep Type: Total/NA

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: WATER Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ВВ	XACOSAI
Lab Sample ID	Client Sample ID		
23DSH028WB	Method Blank		
Surrogate Legend			
BB = BROMOBEN	ZENE		
HEXACOSANE = F	HEXACOSANE		

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11/22/2023

Surrogate Summary

Client: City & County of Honolulu Job ID: 380-59313-2

Project/Site: RED-HILL

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: WATER Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		ВВ	XACOSAI					
Lab Sample ID	Client Sample ID	(60-130)	(60-130)					
23DSH028WC	LCD	67	78					
23DSH028WL	Lab Control Sample	72	84					
23J5H028WC	LCD	77	84					
23J5H028WL	Lab Control Sample	68	79					
23J8H028WC	LCD	79	72					
23J8H028WL	Lab Control Sample	92	81					
Surrogate Legend	I							
BB = BROMOBEN	ZENE							
HEXACOSANE = H	HEXACOSANE							

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Client: City & County of Honolulu Job ID: 380-59313-2

Project/Site: RED-HILL

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Lab Sample ID: 109839-B1

Matrix: BlankMatrix

Analysis Batch: O-42060

Prep Batch: O-42060_P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
1-Methylphenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
2-Methylnaphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Acenaphthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Acenaphthylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benz[a]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benzo[a]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benzo[b]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benzo[e]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benzo[g,h,i]perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Benzo[k]fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Biphenyl	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Chrysene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Dibenz[a,h]anthracene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Dibenzothiophene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Disalicylidenepropanediamine	ND		0.1	0.05	μg/L		08/21/23 00:00	09/23/23 23:07	1
Fluoranthene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Fluorene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Naphthalene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Perylene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Phenanthrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1
Pyrene	ND		0.005	0.001	μg/L		08/21/23 00:00	09/23/23 23:07	1

	Blank	Blank				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	88		27 - 133	08/21/23 00:00	09/23/23 23:07	1
(d10-Phenanthrene)	95		43 - 129	08/21/23 00:00	09/23/23 23:07	1
(d12-Chrysene)	92		52 - 144	08/21/23 00:00	09/23/23 23:07	1
(d12-Perylene)	92		36 - 161	08/21/23 00:00	09/23/23 23:07	1
(d8-Naphthalene)	79		25 - 125	08/21/23 00:00	09/23/23 23:07	1

Lab Sample ID: 109839-BS1 Matrix: BlankMatrix Analysis Batch: O-42060 Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: O-42060_P

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1-Methylnaphthalene	0.5	0.431		μg/L		86	31 - 128	
1-Methylphenanthrene	0.5	0.46		μg/L		92	66 - 127	
2,3,5-Trimethylnaphthalene	0.5	0.451		μg/L		90	55 - 122	
2,6-Dimethylnaphthalene	0.5	0.451		μg/L		90	48 - 120	
2-Methylnaphthalene	0.5	0.436		μg/L		87	47 - 130	
Acenaphthene	0.5	0.451		μg/L		90	53 - 131	
Acenaphthylene	0.5	0.455		µg/L		91	43 - 140	
Anthracene	0.5	0.402		μg/L		80	58 - 135	

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11/22/2023

Job ID: 380-59313-2

Client: City & County of Honolulu Project/Site: RED-HILL

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 109839-BS1 Client Sample ID: Lab Control Sample Matrix: BlankMatrix **Prep Type: Total/NA** Analysis Batch: O-42060 Prep Batch: O-42060_P LCS LCS Spike

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D %R	ec	Limits
Benz[a]anthracene	0.5	0.447		μg/L		89	55 - 145
Benzo[a]pyrene	0.5	0.477		μg/L		95	51 - 143
Benzo[b]fluoranthene	0.5	0.435		μg/L		87	46 - 165
Benzo[e]pyrene	0.5	0.421		μg/L		84	42 - 152
Benzo[g,h,i]perylene	0.5	0.462		μg/L		92	63 - 133
Benzo[k]fluoranthene	0.5	0.454		μg/L		91	56 - 145
Biphenyl	0.5	0.457		μg/L		91	56 - 119
Chrysene	0.5	0.442		μg/L		88	56 - 141
Dibenz[a,h]anthracene	0.5	0.427		μg/L		85	55 - 150
Dibenzo[a,l]pyrene	0.5	0.544		μg/L	1	09	50 - 150
Dibenzothiophene	0.5	0.472		μg/L		94	46 - 126
Disalicylidenepropanediamine	50	40.5		μg/L		81	50 - 150
Fluoranthene	0.5	0.462		μg/L		92	60 - 146
Fluorene	0.5	0.451		μg/L		90	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.365		μg/L		73	50 - 151
Naphthalene	0.5	0.437		μg/L		87	41 - 126
Perylene	0.5	0.426		μg/L		85	48 - 141
Phenanthrene	0.5	0.464		μg/L		93	67 - 127
Pyrene	0.5	0.453		μg/L		91	54 - 156

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
(d10-Acenaphthene)	90		27 - 133
(d10-Phenanthrene)	95		43 - 129
(d12-Chrysene)	94		52 - 144
(d12-Perylene)	96		36 - 161
(d8-Naphthalene)	84		25 - 125

Lab Sample ID: 109839-BS2 Client Sample ID: Lab Control Sample Dup Matrix: BlankMatrix Prep Type: Total/NA

Analysis Batch: O-42060

Spike	LCS DUP	LCS DUP				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.5	0.453		μg/L		91	31 - 128	6	30
0.5	0.463		μg/L		93	66 - 127	1	30
0.5	0.459		μg/L		92	55 - 122	2	30
0.5	0.453		μg/L		91	48 - 120	1	30
0.5	0.44		μg/L		88	47 - 130	1	30
0.5	0.457		μg/L		91	53 - 131	1	30
0.5	0.464		μg/L		93	43 - 140	2	30
0.5	0.457		μg/L		91	58 - 135	13	30
0.5	0.451		μg/L		90	55 - 145	1	30
0.5	0.48		μg/L		96	51 - 143	1	30
0.5	0.438		μg/L		88	46 - 165	1	30
0.5	0.434		μg/L		87	42 - 152	4	30
0.5	0.458		μg/L		92	63 - 133	0	30
0.5	0.448		μg/L		90	56 - 145	1	30
0.5	0.465		μg/L		93	56 - 119	2	30
0.5	0.443		μg/L		89	56 - 141	1	30
	Added 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.	Added Result 0.5 0.453 0.5 0.463 0.5 0.459 0.5 0.453 0.5 0.444 0.5 0.457 0.5 0.457 0.5 0.451 0.5 0.438 0.5 0.438 0.5 0.458 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448	Added Result Qualifier 0.5 0.453 0.5 0.459 0.5 0.453 0.5 0.444 0.5 0.457 0.5 0.457 0.5 0.457 0.5 0.451 0.5 0.438 0.5 0.438 0.5 0.458 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448 0.5 0.448	Added Result Qualifier Unit 0.5 0.453 μg/L 0.5 0.463 μg/L 0.5 0.459 μg/L 0.5 0.453 μg/L 0.5 0.444 μg/L 0.5 0.457 μg/L 0.5 0.457 μg/L 0.5 0.457 μg/L 0.5 0.451 μg/L 0.5 0.48 μg/L 0.5 0.438 μg/L 0.5 0.458 μg/L 0.5 0.448 μg/L	Added Result Qualifier Unit D 0.5 0.453 μg/L μg/L 0.5 0.459 μg/L μg/L 0.5 0.453 μg/L μg/L 0.5 0.457 μg/L μg/L 0.5 0.457 μg/L μg/L 0.5 0.457 μg/L μg/L 0.5 0.451 μg/L 0.5 0.438 μg/L 0.5 0.438 μg/L 0.5 0.458 μg/L 0.5 0.448 μg/L 0.5 0.448 μg/L 0.5 0.448 μg/L 0.5 0.448 μg/L	Added Result Qualifier Unit D %Rec 0.5 0.453 μg/L 91 0.5 0.463 μg/L 93 0.5 0.459 μg/L 92 0.5 0.453 μg/L 91 0.5 0.444 μg/L 88 0.5 0.457 μg/L 93 0.5 0.464 μg/L 93 0.5 0.457 μg/L 91 0.5 0.451 μg/L 90 0.5 0.48 μg/L 96 0.5 0.438 μg/L 88 0.5 0.434 μg/L 87 0.5 0.458 μg/L 92 0.5 0.448 μg/L 90 0.5 0.448 μg/L 90 0.5 0.448 μg/L 90 0.5 0.448 μg/L 90 0.5 0.448 μg/L 90 <td>Added Result Qualifier Unit D %Rec Limits 0.5 0.453 μg/L 91 31 - 128 0.5 0.463 μg/L 93 66 - 127 0.5 0.459 μg/L 92 55 - 122 0.5 0.453 μg/L 91 48 - 120 0.5 0.444 μg/L 88 47 - 130 0.5 0.457 μg/L 91 53 - 131 0.5 0.464 μg/L 93 43 - 140 0.5 0.457 μg/L 91 58 - 135 0.5 0.457 μg/L 91 58 - 145 0.5 0.457 μg/L 90 55 - 145 0.5 0.451 μg/L 96 51 - 143 0.5 0.438 μg/L 88 46 - 165 0.5 0.438 μg/L 87 42 - 152 0.5 0.458 μg/L 92 63 - 133 0.5</td> <td>Added Result 0.453 Unit μg/L D %Rec Limits 2.128 RPD 0.5 0.453 μg/L 91 31-128 6 0.5 0.463 μg/L 93 66-127 1 0.5 0.459 μg/L 92 55-122 2 0.5 0.453 μg/L 91 48-120 1 0.5 0.444 μg/L 88 47-130 1 0.5 0.457 μg/L 91 53-131 1 0.5 0.464 μg/L 93 43-140 2 0.5 0.457 μg/L 91 58-135 13 0.5 0.457 μg/L 91 58-135 13 0.5 0.451 μg/L 90 55-145 1 0.5 0.481 μg/L 96 51-143 1 0.5 0.438 μg/L 88 46-165 1 0.5 0.438 μg/L 87 42-152 4 0.5 0.458 μg/L 92 63-133 0 0.5</td>	Added Result Qualifier Unit D %Rec Limits 0.5 0.453 μg/L 91 31 - 128 0.5 0.463 μg/L 93 66 - 127 0.5 0.459 μg/L 92 55 - 122 0.5 0.453 μg/L 91 48 - 120 0.5 0.444 μg/L 88 47 - 130 0.5 0.457 μg/L 91 53 - 131 0.5 0.464 μg/L 93 43 - 140 0.5 0.457 μg/L 91 58 - 135 0.5 0.457 μg/L 91 58 - 145 0.5 0.457 μg/L 90 55 - 145 0.5 0.451 μg/L 96 51 - 143 0.5 0.438 μg/L 88 46 - 165 0.5 0.438 μg/L 87 42 - 152 0.5 0.458 μg/L 92 63 - 133 0.5	Added Result 0.453 Unit μg/L D %Rec Limits 2.128 RPD 0.5 0.453 μg/L 91 31-128 6 0.5 0.463 μg/L 93 66-127 1 0.5 0.459 μg/L 92 55-122 2 0.5 0.453 μg/L 91 48-120 1 0.5 0.444 μg/L 88 47-130 1 0.5 0.457 μg/L 91 53-131 1 0.5 0.464 μg/L 93 43-140 2 0.5 0.457 μg/L 91 58-135 13 0.5 0.457 μg/L 91 58-135 13 0.5 0.451 μg/L 90 55-145 1 0.5 0.481 μg/L 96 51-143 1 0.5 0.438 μg/L 88 46-165 1 0.5 0.438 μg/L 87 42-152 4 0.5 0.458 μg/L 92 63-133 0 0.5

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Prep Batch: O-42060 P

Job ID: 380-59313-2

Client: City & County of Honolulu

Project/Site: RED-HILL

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 109839-BS2 **Client Sample ID: Lab Control Sample Dup Matrix: BlankMatrix Prep Type: Total/NA** Analysis Batch: O-42060 Prep Batch: O-42060_P

	Spike	LCS DUP	LCS DUP				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenz[a,h]anthracene	0.5	0.452		μg/L		90	55 - 150	6	30
Dibenzo[a,I]pyrene	0.5	0.544		μg/L		109	50 - 150	0	30
Dibenzothiophene	0.5	0.476		μg/L		95	46 - 126	1	30
Disalicylidenepropanediamine	50	43.3		μg/L		87	50 - 150	7	30
Fluoranthene	0.5	0.475		μg/L		95	60 - 146	3	30
Fluorene	0.5	0.462		μg/L		92	58 - 131	2	30
Indeno[1,2,3-cd]pyrene	0.5	0.37		μg/L		74	50 - 151	1	30
Naphthalene	0.5	0.436		μg/L		87	41 - 126	0	30
Perylene	0.5	0.426		μg/L		85	48 - 141	0	30
Phenanthrene	0.5	0.473		μg/L		95	67 - 127	2	30
Pyrene	0.5	0.462		μg/L		92	54 - 156	1	30

LCS DUP LCS DUP

Surrogate	%Recovery	Qualifier	Limits
(d10-Acenaphthene)	94		27 - 133
(d10-Phenanthrene)	100		43 - 129
(d12-Chrysene)	98		52 - 144
(d12-Perylene)	99		36 - 161
(d8-Naphthalene)	87		25 - 125
	(d10-Acenaphthene) (d10-Phenanthrene) (d12-Chrysene) (d12-Perylene)	(d10-Acenaphthene) 94 (d10-Phenanthrene) 100 (d12-Chrysene) 98 (d12-Perylene) 99	(d10-Acenaphthene) 94 (d10-Phenanthrene) 100 (d12-Chrysene) 98 (d12-Perylene) 99

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 23VG39H05B **Client Sample ID: Method Blank Matrix: WATER** Prep Type: Total/NA

Analysis Batch: 23VG39H05

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/17/23 15:56	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE						_		08/17/23 15:56	1

Lab Sample ID: 23VG39H05L **Client Sample ID: Lab Control Sample**

100 100

Matrix: WATER

Analysis Batch: 23VG39H05

	Spike	LUS	LUS			/orec	
Analyte	Added	Result	Qualifier Uni	t D	%Rec	Limits	
GASOLINE	0.5	0.487	mg/	L	97	60 - 130	

Snika

LCS LCS %Recovery Qualifier Surrogate Limits **BROMOFLUOROBENZENE** 108 70 - 130

Lab Sample ID: 23H135-01M Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: WATER

Analysis Batch: 23VG39H05

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
GASOLINE	ND		0.5	0.419		mg/L		84	50 - 130	

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Prep Type: Total/NA

% Doc

Job ID: 380-59313-2

Client: City & County of Honolulu

Project/Site: RED-HILL

Prep Type: Total/NA

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics (Continued)

Lab Sample ID: 23H135-01M

Matrix: WATER

Analysis Batch: 23VG39H05

MS MS

%Recovery Qualifier Limits Surrogate BROMOFLUOROBENZENE 102 60 - 140

Lab Sample ID: 23H135-01S

Matrix: WATER

Analyte

GASOLINE

Surrogate

Analysis Batch: 23VG39H05

Sample Sample Result Qualifier

Qualifier

Spike Added 0.5

Limits

MSD MSD Result Qualifier 0.496

Unit mg/L

%Rec 99

Limits 50 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

%Rec

%Rec

Limits

Client Sample ID: Lab Control Sample

50 - 130

%Rec

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Matrix Spike

RPD Limit 17

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

RPD

30

BROMOFLUOROBENZENE 60 - 140 106 Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

%Recovery

ND

MSD MSD

Lab Sample ID: 23DSH028WB

Matrix: WATER

Analysis Batch: 23DSH028W

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			08/28/23 19:20	1
JP5	ND	U	0.05		mg/L			08/28/23 19:20	1
JP8	ND	U	0.05		mg/L			08/28/23 19:20	1
MOTOR OIL	ND	U	0.05		mg/L			08/28/23 19:20	1

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac **BROMOBENZENE** 08/28/23 19:20 **HEXACOSANE** 08/28/23 19:20

Lab Sample ID: 23DSH028WL

Matrix: WATER

Analyte

JP5

Analysis Batch: 23DSH028W

DIESEL 2.5 LCS LCS

%Recovery Qualifier Surrogate I imits BROMOBENZENE 60 - 130 72 **HEXACOSANE** 84 60 - 130

Lab Sample ID: 23J5H028WL

Matrix: WATER

Analysis Batch: 23DSH028W

Analyte

Spike Added 2.5

Spike

Added

LCS LCS Result Qualifier 1.55

LCS LCS

1.89

Result Qualifier

Unit mg/L

Unit

mg/L

%Rec 62

%Rec Limits

Prep Type: Total/NA

30 - 160

QC Sample Results

Client: City & County of Honolulu Job ID: 380-59313-2

Project/Site: RED-HILL

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 23J5H028WL **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: WATER

Analysis Batch: 23DSH028W

LCS LCS %Recovery Qualifier Surrogate Limits BROMOBENZENE 68 60 - 130 **HEXACOSANE** 79 60 - 130

Lab Sample ID: 23J8H028WL **Client Sample ID: Lab Control Sample**

Matrix: WATER Prep Type: Total/NA

Analysis Batch: 23DSH028W

%Rec Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits JP8 2.5 2.63 mg/L 105 30 - 160

LCS LCS Surrogate **%Recovery Qualifier** Limits BROMOBENZENE 92 60 - 130 **HEXACOSANE** 81 60 - 130

QC Association Summary

Client: City & County of Honolulu Job ID: 380-59313-2

Project/Site: RED-HILL

Subcontract

Analysis Batch: O-42060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-59313-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625 PAH Physis	O-42060_P
				LL (EAL) + TICs	
380-59313-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625 PAH Physis	O-42060_P
				LL (EAL) + TICs	
109839-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis	O-42060_P
				LL (EAL) + TICs	
109839-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis	O-42060_P
				LL (EAL) + TICs	
109839-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis	O-42060_P
				LL (EAL) + TICs	

Analysis Batch: 23DSH028W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-59313-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015 LL	-
				DRO/MRO/JP5/J	
				P8	
380-59313-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 LL	
				DRO/MRO/JP5/J	
				P8	
23DSH028WB	Method Blank	Total/NA	WATER	8015 LL	
				DRO/MRO/JP5/J	
				P8	
23DSH028WL	Lab Control Sample	Total/NA	WATER	8015 LL	
				DRO/MRO/JP5/J	
				P8	
23J5H028WL	Lab Control Sample	Total/NA	WATER	8015 LL	
				DRO/MRO/JP5/J	
				P8	
23J8H028WL	Lab Control Sample	Total/NA	WATER	8015 LL	
				DRO/MRO/JP5/J	
				P8	

Analysis Batch: 23VG39H05

Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015 Gas	
			(Purgeable) LL	
			(EAL)	
AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water		
			` ,	
TD AIEA MEL O DUMBO (000) DO	T / 1/514		, ,	
TB: AIEA WELLS PUMPS 1&2 (260) P2	Iotal/NA	Water		
			` ,	
TB: AIEA CHII CH WELLS DUMD 2	Total/NIA	Water		
TB. AILA GOLOTT WELLS TOWN 2	IOIai/IVA	vvalci		
			`	
Method Blank	Total/NA	WATER	, ,	
			(EAL)	
Lab Control Sample	Total/NA	WATER	8015 Gas	
			(Purgeable) LL	
			(EAL)	
Matrix Spike	Total/NA	WATER		
			, • ,	
Matthe Online Donall and	T-4-1/N1A	MATER	, ,	
Matrix Spike Duplicate	Iotai/NA	WATER		
			(Purgeable) LL (EAL)	
	AIEA WELLS PUMPS 1&2 (260) P2 AIEA GULCH WELLS PUMP 2 TB: AIEA WELLS PUMPS 1&2 (260) P2 TB: AIEA GULCH WELLS PUMP 2 Method Blank	AIEA WELLS PUMPS 1&2 (260) P2 Total/NA AIEA GULCH WELLS PUMP 2 Total/NA TB: AIEA WELLS PUMPS 1&2 (260) P2 Total/NA TB: AIEA GULCH WELLS PUMP 2 Total/NA Method Blank Total/NA Lab Control Sample Total/NA Matrix Spike Total/NA	AIEA WELLS PUMPS 1&2 (260) P2 Total/NA Drinking Water AIEA GULCH WELLS PUMP 2 Total/NA Drinking Water TB: AIEA WELLS PUMPS 1&2 (260) P2 Total/NA Water TB: AIEA GULCH WELLS PUMP 2 Total/NA Water Method Blank Total/NA WATER Lab Control Sample Total/NA WATER	AIEA WELLS PUMPS 1&2 (260) P2 Total/NA Drinking Water 8015 Gas (Purgeable) LL (EAL) 8015 Gas (Purgeable) LL (EAL) TB: AIEA WELLS PUMPS 1&2 (260) P2 Total/NA TB: AIEA GULCH WELLS PUMPS 1&2 (260) P2 Total/NA Water 8015 Gas (Purgeable) LL (EAL) TB: AIEA GULCH WELLS PUMP 2 Total/NA Water 8015 Gas (Purgeable) LL (EAL) Water 8015 Gas (Purgeable) LL (EAL) Method Blank Total/NA WATER 8015 Gas (Purgeable) LL (EAL) WATER 8015 Gas (Purgeable) LL (EAL) WATER 8015 Gas (Purgeable) LL (EAL) Matrix Spike Total/NA WATER 8015 Gas (Purgeable) LL (EAL) Matrix Spike Total/NA WATER 8015 Gas (Purgeable) LL (EAL) Matrix Spike Duplicate Total/NA WATER 8015 Gas (Purgeable) LL (EAL) WATER 8015 Gas (Purgeable) LL (EAL)

Eurofins Eaton Analytical Pomona

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QC Association Summary

Client: City & County of Honolulu Project/Site: RED-HILL Job ID: 380-59313-2

Subcontract

Prep Batch: O-42060_P

Lab Sample ID 380-59313-1	Client Sample ID AIEA WELLS PUMPS 1&2 (260) P2	Prep Type Total/NA	Matrix Drinking Water	Method EPA_625	Prep Batch
380-59313-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	EPA_625	
109839-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
109839-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
109839-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

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Client: City & County of Honolulu

Project/Site: RED-HILL

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-59313-1 Date Collected: 08/14/23 11:14 **Matrix: Drinking Water** Date Received: 08/16/23 10:10

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	EPA_625		1	O-42060_P			08/21/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42060	YC		09/24/23 04:31
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39H05	SCerva		08/17/23 17:48
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSH028W	SDees		08/28/23 21:31

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-59313-2 Date Collected: 08/14/23 10:32 **Matrix: Drinking Water** Date Received: 08/16/23 10:10

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	EPA_625		1	O-42060_P			08/21/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42060	YC		09/24/23 06:20
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39H05	SCerva		08/17/23 19:39
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSH028W	SDees		08/28/23 21:50

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-59313-3 Date Collected: 08/14/23 11:14 **Matrix: Water** Date Received: 08/16/23 10:10

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39H05	SCerva	-	08/17/23 20:16

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-59313-4 Date Collected: 08/14/23 10:32 **Matrix: Water**

Date Received: 08/16/23 10:10

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) I I (FAL)	-	1	23VG39H05	SCerva		08/17/23 20:53

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

Eurofins Eaton Analytical Pomona

Method Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

Job ID: 380-59313-2

Method	Method Description	Protocol	Laboratory
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

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Sample Summary

Client: City & County of Honolulu Project/Site: RED-HILL

Job ID: 380-59313-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-59313-1	AIEA WELLS PUMPS 1&2 (260) P2	Drinking Water	08/14/23 11:14	08/16/23 10:10
380-59313-2	AIEA GULCH WELLS PUMP 2	Drinking Water	08/14/23 10:32	08/16/23 10:10
380-59313-3	TB: AIEA WELLS PUMPS 1&2 (260) P2	Water	08/14/23 11:14	08/16/23 10:10
380-59313-4	TB: AIEA GULCH WELLS PUMP 2	Water	08/14/23 10:32	08/16/23 10:10



3051 Fujita Street Torrance, CA 90505 Tel: (310)-618-8889

Date: 09-13-2023 EMAX Batch No.: 23H135

Attn: Jackie Contreras

Eurofins Eaton Analytical 750 Royal Oaks Dr., Suite 100 Monrovia, CA 91016-3629

Subject: Laboratory Report

Project: 380-59313

Enclosed is the Laboratory report for samples received on 08/17/23. The data reported relate only to samples listed below :

Control #	Col Date	Matrix	Analysis
	• • • • • • • •	•••••	******
H135-01	08/14/23	WATER	TPH GASOLINE
H135-02	0B/14/23	WATER	TPH GASOLINE
H135-03	08/14/23	WATER	TPH GASOLINE
H135-04	08/14/23	WATER	TPH GASOLINE
H135-01M	08/14/23	WATER	TPH GASOLINE
H135-01S	08/14/23	WATER	TPH GASOLINE
	H135-01 H135-02 H135-03 H135-04 H135-01M	H135-02 08/14/23 H135-03 08/14/23 H135-04 08/14/23 H135-01M 08/14/23	H135-01 08/14/23 WATER H135-02 0B/14/23 WATER H135-03 08/14/23 WATER H135-04 08/14/23 WATER H135-01M 08/14/23 WATER

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912022-24 ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing California ELAP Accredited Certificate Number 2672

Pomona, CA 91768-2642 941 Corporate Center Drive **Eurofins Eaton Analytical Pomona**

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23H135

eurofins

Chain of Custody Record

College Coll	Phone: 626-386-1100					Brok		2
Contract Provide	(Sub Contract Lab)	Sampler:		Lab PM: Arada, Rachelle		Carrier Tracking No(s):	COC No: 380-71295.1	11/2
Machine Mach		Phone:		E-Mail: Rachelle.Arada@	et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1	
Analysis Requested Analysi	Company:			Accreditations (Required (See note):		Job #:	
Page Properties Page Properties Page Properties Page Pag	EMAX Laboratories Inc			State - Haw	aii		380-59313-1	L
Fulls Street,		Due Date Requested:					Preservation Codes:	
The properties The	-	8/25/2023			Analysis Req	uested	A - HCL M - Hexane	
December		TAT Requested (days):						
PO #	Torrance							
POR:	State, Zip:			Gas				
Name: POR:				15		_		
Name: Name: Poject#))/ 80			Acid	
Table III. Soon 1111		WO #		No) L (EAL	Jeon		J - Di Water	
Noulu BWS Sites Solution Sol		Project #: 38001111		es or able) l			L-EDA	
Sample Date Time G=grab) Sample (C=comp. Operation. Ann.) Water X X X X X X X X X		SSOW#:		J (Y Jirge (L)			44500	
Sample Date Time G=grab) service. Sample Cimenton Service. Sample Cimenton Service. Sample Cimenton Service. Sample Date Time G=grab) service. Sample Cimenton Service. Sample Date Time G=grab) service. Sample Date Time G=grab) service. Sample Cimenton Service. Sample Date Time G=grab) service. Sample Cimenton Service. Sam	Honolulu BWS Sites			(Pu (EA			rof	
Sample Date Time (C=comp., comp.) (C=com				ered MS/N 5 Gas e) LL			mbe	
Sample Date Time G=grabl) Infrared, Available Special Instructions/Note: Special Instructions Speci		<u> </u>	Type	d Fili form (801 geab			aj Nu	
3-1) 8/14/23 Hawaiian Water X X	Sample Identification - Client ID (Lab ID)		_	Pe SU (Pu			e-price-	<u>. </u>
13-1) 8/14/23 Hawaiian Hawaiian Water X X See Attached Instructions 13-3) 8/14/23 Hawaiian Hawaiian Water X X See Attached Instructions 13-3) 8/14/23 Hawaiian Hawaiian Water X See Attached Instructions 3-4) 8/14/23 Hawaiian Hawaiian Water X See Attached Instructions			Preservatio	X				f Q
8/14/23 10:32 Hawaiian Water X X X See Attached Instructions 13-3) 8/14/23 Hawaiian Hawaiian Water X X 32 See Attached Instructions 3-4) 8/14/23 Hawaiian Hawaiian Water X X 32 See Attached Instructions 3-4) 8/14/23 Hawaiian Water X X 32 See Attached Instructions	AIEA WELLS PUMPS 1&2 (260) P2 (380-59313-1)		I:14 vaiian		×			4 0
8/14/23	AIEA GULCH WELLS PUMP 2 (380-59313-2)):32 vaiian		×		6 See Attached Instructions	IP ?
8/14/23 10:32 Water X 2	TB: AIEA WELLS PUMPS 1&2 (260) (380-59313-3)		l:14 vaiian				2 See Attached Instructions	Par
	TB: AIEA GULCH WELLS PUMP 2 (380-59313-4)							
								L

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Custody Seals Intact: | Custody Seal No.: RE**P(NP P NO**: 23H135

Relinquished by: telinquished by linquished by:

Date/Time:

Company

Received by: Received by:

Cooler Temperature(s) $^{\circ}$ C and Other Remarks: 3.4/3.5

CF = 0.1

Page 2, of 37

Company Company T I B Empty Kit Relinquished by:

Deliverable Requested: I, II, III, IV, Other (specify)

Primary Deliverable Rank: 2

Date:

ime:

Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Month

Months

d 50 m

Method of Shipment

Date/Time:

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10, 24

Company

Received by:

Possible Hazard Identification

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratores. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditations status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Environment Testing

Sufficient MANN RIVORA Time	Sampler Name MeSampling Date/Time Sampler Name Cooler 3 Cooler 3 Cooler 3 Cooler 3 Cooler 4 Cooler 5 Cooler 6 Cooler 7 Cooler 7 Cooler 8 Cooler 8 Cooler 8 Cooler 8 Cooler 8 Cooler 8 Cooler 9	Delco	A - S/N 2218 527 N S Cooler 18	DISCREPANCIES DISCREPANCIES Control
TATAT (if any) Descriptive (if any) Sufficient Cooler 4 °C □ Cooler 5 °C Cooler 9 °C □ Cooler 10 °C Cooler 9 °C □ Cooler 10 °C And a cooler 10 °C D- S/M	Sampler Name Courier Signature Courier	Cool	Tel # / Fax # High concentrations expendence Supplie Pack Cooler	DISCREPANCIES Note: Container
TATM (if any) WATA Descrivative (if any) (10 an	Courier Signature From Superfund Site Rad screening required From Superfund Site Cooler 3	Cool	Lange Physic Concentrations experience of range Pack 2001er 20	DISCREPANCIES Comments: Temperature is out Thermometer: Cool 56 "C but not force) Condition CONTOCATON Container C
TATM (if any) WATA Descrivative (if any) (10 an	Courier Signature From Superfund Site Rad screening required From Superfund Site Cooler 3	Cool	Lange Physic Concentrations experience of range Pack 2001er 20	DISCREPANCIES Comments: Themperature is out Thermometer: Cool 56 "C but not force) Condition Condition Condition Condition Condition Condition PACKAGING INSPECTION PACKAGING INSPECTION The condition The
Cooler 4	From Superfund Site Rad screening required Pox C-SW Cooler 8 °C Cooler 8 °	Cool	Labele Concentrations experiments of range. PM was informed transfer. Labele Pack of Cooler 134/33 °C october 134/33 °C	DISCREPANCIES Comments: Themperature is out Thermometer: Cool 56 "C but not force) Seckaging Container Container PACKAGING INSPECTION PACKAGING
Sufficient	Box	OOO COOL	LabSampleContainerID Custody Seal Custody Seal Custody Seal Custody Seal Custody Seal	DISCREPANCIES Comments: Thermometer: Thermometer: Sockaging (ACATY: -0.) Condition (OMECAION) Condition (OMECAION) PACKAGING INSPECTION
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Sufficient	Damaged Dama	Cool	© Custody Seal Custody Seal Custody Seal Cooler 6 Cooler 7 Cooler 6 Cooler 7 C	DISCREPANCIES Condition Cooles: Thermometer: Thermometer: Thermometer: Thermometer: Thermometer: Cooles: Cooles
Sufficient	Damaged Dama	Cool	© Custody Seal Custody Seal Custody Seal Cooler 6 Cooler 7 Cooler 6 Cooler 7 C	DISCREPANCIES Condition Cooles: Thermometer: Thermometer: Thermometer: Thermometer: Thermometer: Cooles: Cooles
Cooler 9 °C Cooler 10 °C °C Cooler 5 °C	Damaged Dama	Cool	Cooler 134/33 °C Cooler 134/33 °C Cooler 6 °C Cooler 7 °C Cooler 7 °C Cooler 7 °C Cooler 8 °C Cooler 8 °C Cooler 9 °C Cooler 9 °C Cooler 9 °C Cooler 134 °C Cool	DISCREPANCIES Comments: Themperature is out Thermometer: Thermometer: Themperature Seckaging Condition
Cooler 9 °C Cooler 10 °C °C Cooler 5 °C °C Cooler 5 °C	EDIVLELY. 61.7 °C	Cool	A Bubble Pack Cooler 6 A - S/V 2218 52748 of range. PM was informed	DISCREPANCIES Cool 56 "C but not frozen) Cool 56 "C but not frozen) Thermometer: Temperature is out Thermometer:
Cooler 9 °C Cooler 10 °C °C Cooler 5 °C °C Cooler 5 °C	et 2 °C = Coolet 8 °C SDIATELY C-S/N C-	1 Cool	Cancer 6 °C A - S/V 2218 62748 of range. PM was informed	DISCREPANCIES Cool, 56 "C but not free; Cool, 56 "C but not free; Configuration free; Cool, 56 "C but not free; Cool, 57 "
D - S/N	EDIATELY. B) SNA 1240128714 C-SNA B) SNA 1240128714 C-SNA	J Cool	Of range. PM was informed trange. PM was informed to the poly of t	DISCREPANCIES Note: Tremperature is out Thermometer:
	B) SN INGSEN C-SN	J IMMI	of range. PM was informed by tange. PM was informed by the boundainer of the boundai	DISCREPANCIES Comments: Thermometer: Thermometer:
Corrective Action	DIATELY.	J IMMI	of range. PM was informed	DISCREPANCIES Comments: Temperature is out
Corrective Action		Spo2	LabSampleContainerID	DIÈCKEPANCIES Note:
Corrective Action	ClientSample Label ID \ Information			
Corrective Action	ClientSample Label ID / Information			
Corrective Action	ClientSample Label ID / Information			
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nutes from sampling time.	ater samples for pH analysis are received beyond 15 min	W sai	m 21 si salames ratem 101	
	and the second s			
				NOTES/OBSERVATIONS:
		<u> </u>	MATERY DIVES DINO	SAMPLE MATRIX IS DRINKING
			· · · · · · · · · · · · · · · · · · ·	
		 		
☐ Continue to next page.				recend:
JanemegeneM slqmeR-noitgirzeed bbo.	Description-Sample Management	Code	អ្នកមានប្រជាព្រះ	Code Description- Sample Man:
RI Proceed as indicated in COC Label	Out of Holding Time			II Analysis is not indicated in
R2 Refer to attached instruction	Bubble is >6mm		label	D2 Analysis mismatch COC vs
R3 Cancel the analysis	No tub blank in cooler			D3 Sample ID mismatch COC
R4 Use vial with smallest bubble first R5 Log.in with latest sampling date and time+1 min	Preservation not indicated in Preservation mismatch COC vs label			D4 Sample ID is not indicated
Ro Adjust pH as necessary	Preservation mismacit COC vs facet Insufficient chemical preservative			D5 Container - [improper] [leak
R7 Filter and pres treed as necessary	Insufficient Sample			D6 Date/Time is not indicated TO Date/Time mismatch COC
R8 DOWNER CROWN	No filtration info for dissolved analysis			D8 Sample listed in COC is no
63 01	No sample for moisture determination	DSI		D9 Sample received is not liste
RIO VI		D33		Mo initial/date on correction
RII		D23		DII Container count mismatch
		-	Mappy Mappy	D12 Container size mismatch C
TIN ZIN	17 //	- 1		Sample Labeling
Mq Mq	SRF CAS	\sim	100000000000000000000000000000000000000	Sunsava siduuve
ZIN ZIN	Date & SAX		157/8 57/11/80 =	

SAMPLE RECEIPT FORM 1

REFERENCE: EMAX-SM02 Rev. 12



DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
В	В	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

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LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-59313

METHOD 5030B/8015B TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 23H135

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-59313

SDG : 23H135

METHOD 5030B/8015B

TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of four(4) water samples were received on 08/17/23 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VG39H05B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VG39H05L/VG39H05C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in H135-01M/H135-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

REPORT ID: 23H135

Page 6 of 37

Cllent Project	: EUROFINS EATON ANALYTICAL : 380-59313	A ANALYTICAL							SDG NO. : 23H135 Instrument ID : GCT039
					WA	WATER			
Client		Laboratory	Dilution	96	Analysis	_	Sample	Calibration Prep.	η Prep.
Sample ID		Sample ID	Factor	Moist	DateTime	DateTime	Data FN	Data FN	Batch Notes
							:	: : : :	
MBLK1W		VG39H05B	П	¥	08/17/2315:56	08/17/2315:56	EH17005A	EH17004A	23VG39H05 Method Blank
LCS1W		VG39H05L	Н	Ā	08/17/2316:33	08/17/2316:33	EH17006A	EH17004A	23VG39H05 Lab Control Sample (LCS)
LCD1W		VG39H05C	-	¥	08/17/2317:11	08/17/2317:11	EH17007A	EH17004A	23VG39H05 LCS Duplicate
380-59313-1		H135-01	П	¥	08/17/2317:48	08/17/2317:48	EH17008A	EH17004A	23VG39H05 Field Sample
380-59313-1	SM	H135-01M	₩	¥	08/17/2318:25	08/17/2318:25	EH17009A	EH17004A	23VG39H05 Matrix Spike Sample (MS
380-59313-1	MSD	H135-01S	۳	¥	08/17/2319:02	08/17/2319:02	EH17010A	EH17004A	23VG39H05 MS Duplicate (MSD)
380-59313-2		H135-02	П	≨	08/17/2319:39	08/17/2319:39	EH17011A	EH17004A	23VG39H05 Field Sample
380-59313-3	~~	H135-03	1	¥	08/17/2320:16	08/17/2320:16	EH17012A	EH17004A	23VG39H05 Field Sample
380-59313-4		H135-04	1	≨	08/17/2320:53	08/17/2320:53	EH17013A	EH17004A	23VG39H05 Field Sample

SAMPLE RESULTS

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 11:14

Project : 380-59313 Date Received: 08/17/23

Batch No. : 23H135

Date Extracted: 08/17/23 17:48

Sample ID : 380-59313-1

Date Analyzed: 08/17/23 17:48

Lab Samp ID: H135-01 Lab File ID: EH17008A Dilution Factor: 1

Ext Btch ID: 23VG39H05

Matrix: WATER

Calib. Ref.: EH17004A

% Moisture: NA Instrument ID: 39

RESULTS RL MDL **PARAMETERS** (mg/L) (mg/L) (mg/L)

RESULT

GASOLINE

ND 0.020 0.010

SURROGATE PARAMETERS

%RECOVERY

SPK AMT

QC LIMIT

Bromofluorobenzene

0.0312 0.0400 78 60-140

Notes:

Parameter

H-C Range

Gasoline

C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by

: SCerva

Analyzed by : SCerva

Client : EUROFINS EATON ANALYTICAL

Date Collected: 08/14/23 10:32

Project

: 380-59313

Date Received: 08/17/23

Batch No. : 23H135

Date Extracted: 08/17/23 19:39

Sample ID : 380-59313-2

Date Analyzed: 08/17/23 19:39 Dilution Factor: 1

Lab Samp ID: H135-02 Lab File ID: EH17011A

Matrix: WATER

Ext Btch ID: 23VG39H05

% Moisture: NA

Calib. Ref.: EH17004A

Instrument ID: 39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT

0.0302 0.0400 76 60-140 Bromofluorobenzene

Notes:

Parameter

H-C Range

Gasoline

C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by

: SCerva

Analyzed by : SCerva

METHOD 5030B/8015B TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 11:14

Project : 380-59313 Date Received: 08/17/23

Batch No. : 23H135 Date Extracted: 08/17/23 20:16 Sample ID : 380-59313-3 Date Analyzed: 08/17/23 20:16

Lab Samp ID: H135-03 Dilution Factor: 1 Lab File ID: EH17012A Matrix: WATER Ext Btch ID: 23VG39H05 % Moisture: NA Calib. Ref.: EH17004A Instrument ID: 39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0316	0.0400	79	60-140

Notes:

Parameter H-C Range Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml Final Volume : 5ml

Prepared by : SCerva Analyzed by : SCerva

: EUROFINS EATON ANALYTICAL

: 380-59313

4	Date	e Analyzed:	08/17/23 20:53
	Dilut	ion Factor:	1
		Matrix:	WATER
		% Moisture:	NA
	Ins	trument ID:	39
			
RESULTS	RL	MDL	
(mg/L)	(mg/L)	(mg/L)	
	• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	-
ND	0.020	0.010	
RESULT	SPK_AMT	%RECOVERY	QC LIMIT
0.0309	0.0400	77	60-140
	RESULTS (mg/L) ND RESULT	Ins RESULTS RL (mg/L) (mg/L) ND 0.020 RESULT SPK_AMT	Dilution Factor: Matrix: Moisture: Instrument ID: RESULTS RL MDL (mg/L) (mg/L) (mg/L) ND 0.020 0.010 RESULT SPK_AMT %RECOVERY

Notes:

Client

Project

Batch No. : 23H135

Parameter

H-C Range

Gasoline

C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Date Collected: 08/14/23 10:32

Date Extracted: 08/17/23 20:53

Date Received: 08/17/23

Prepared by

: SCerva

Analyzed by : SCerva

QC SUMMARIES

: EUROFINS EATON ANALYTICAL

Project : 380-59313		Dat	e Received:	08/17/23
Batch No. : 23H135		Date	Extracted:	08/17/23 15:56
Sample ID : MBLK1W		Dat	e Analyzed:	08/17/23 15:56
Lab Samp ID: VG39H05B		Dilut	ion Factor:	1
Lab File ID: EH17005A			Matrix:	WATER
Ext Btch ID: 23VG39H05			% Moisture:	NA
Calib. Ref.: EH17004A		Ins	trument ID:	39
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	-
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	•
Bromofluorobenzene	0.0327			
•				

Notes:

Client

Parameter

H-C Range

Gasoline

C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Date Collected: 08/17/23 15:56

Prepared by

: SCerva

Analyzed by : SCerva

CLIENT

: EUROFINS EATON ANALYTICAL

PROJECT

: 380-59313

BATCH NO.

: 23H135

METHOD

: 5030B/8015B

LIVILITY	MATRI	X	
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: WATER

DILUTION FACTOR: 1

SAMPLE ID : MBLK1W

LAB SAMPLE ID : VG39H05B LAB FILE ID

: EH17005A DATE PREPARED : 08/17/23 15:56

DATE ANALYZED : 08/17/23 15:56 PREP BATCH

: 23VG39H05 CALIBRATION REF: EH17004A

LCS1W

VG39H05L EH17006A 08/17/23 16:33

08/17/23 16:33 23VG39H05 EH17004A

LCD1W VG39H05C

EH17007A 08/17/23 17:11 08/17/23 17:11

% MOISTURE:NA

23VG39H05 EH17004A

ACCESSION:

MBResult SpikeAmt LCSResult LCSRec SpikeAmt LCDResult LCDRec RPD OCLimit MaxRPD **PARAMETERS** (mg/L) (mg/L) (mg/L) (%) (mg/L) (mg/L) (%) (%) (%) (%) Gasoline ND 0.500 0.487 97 0.500 0.486 97 0 60-130 30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	(%)	(mg/L)	LCDResult (mg/L)	(%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0430	108	0.0400	0.0408	102	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

CLIENT

: EUROFINS EATON ANALYTICAL

PROJECT BATCH NO. : 380-59313 : 23H135

METHOD

: 5030B/8015B

MATRIX

: WATER

DILUTION FACTOR: 1

% MOISTURE:NA

SAMPLE ID : 380-59313-1 LAB SAMPLE ID : H135-01

380-59313-1MS H135-01M

380-59313-1MSD

LAB FILE ID : EH17008A

EH17009A

H135-01S EH17010A

DATE PREPARED : 08/17/23 17:48 DATE ANALYZED : 08/17/23 17:48 08/17/23 18:25 08/17/23 18:25 08/17/23 19:02 08/17/23 19:02

PREP BATCH : 23VG39H05 CALIBRATION REF: EH17004A

23VG39H05 EH17004A----- 23VG39H05 EH17004A

ACCESSION:

PARAMETERS	(mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	(%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	(%)
Gasoline	ND	0.500	0.419	84	0.500	0.496	99	17	50-130	30

SURROGATE PARAMETER	SpikeAmt	MSResult	MSRec	SpikeAmt	MSDResult	MSDRec	QCLimit
	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(%)	(%)
Bromofluorobenzene	0.0400	0.0408	102	0.0400	0.0424	106	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

REPORT ID: 23H135

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LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-59313

METHOD 3520C/8015B TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23H135

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CASE NARRATIVE

Client: EUROFINS EATON ANALYTICAL

Project: 380-59313

SDG : 23H135

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 08/17/23 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH028WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. DSH028WL/DSH028WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample
No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

REPORT ID: 23H135

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-59313

SDG : 23H135

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 08/17/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH028WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. J5H028WL/J5H028WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

REPORT ID: 23H135

Page 19 of 37

CASE NARRATIVE

Client: EUROFINS EATON ANALYTICAL

Project: 380-59313

SDG : 23H135

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 08/17/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH028WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. $\tt J8H028WL/J8H028WC$ were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

REPORT ID: 23H135

Lab Control Sample (LCS)

23DSH028W Method Blank 23DSH028W Lab Control 3

LH28003A LH28003A

LH28010A LH28010A LH28011A LH28016A LH28016A

08/24/2314:00 08/24/2314:00 08/24/2314:00 08/24/2314:00

08/28/2319:20 08/28/2319:39 08/28/2319:57 08/28/2321:31 08/28/2321:50

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DSH028WL DSH028WC DSH028WB

H135-01 H135-02

LCD1W 380-59313-1 380-59313-2

FN - Filename % Moist - Percent Moisture

08/24/2314:00

Notes

Batch

Data FN

Sample Data FN

Extraction DateTime

Analysis DateTime

Moist

Factor

Sample ID

Sample ID

MBLK1W LCS1W

Client

Laboratory Dilution

EUROFINS EATON ANALYTICAL 380-59313

Project Client

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WATER

Calibration Prep.

23DSH028W LCS Duplicate 23DSH028W Field Sample 23DSH028W Field Sample

LH28003A LH28003A LH28003A

: 23H135 : D5

SDG NO. Instrument ID

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11/22/2023

5-1

SDG NO. : 23H135 Instrument ID : D5			Batch Notes		23DSH028W Method Blank	23DSH028W Lab Control Sample (LCS)	23DSH028W LCS Duplicate	23DSH028W Field Sample	23DSH028W Field Sample
		Calibration Prep.	Data FN	:		LH28004A			LH28004A
		Sample	Data FN		LH28009A	LH28012A	LH28013A	LH28016A	LH28017A
	WATER	Extraction	DateTime		08/24/2314:00	08/24/2314:00	08/24/2314:00	08/24/2314:00	08/24/2314:00
	-MA	Analysis	DateTime		08/28/2319:20	08/28/2320:16	08/28/2320:35	08/28/2321:31	08/28/2321:50
		» e	Moist	: : :	≨	¥	¥	¥	¥
		Dilution	Factor	::::	-	П	-	–	Н
ANALYTICAL		Laboratory	Sample ID Factor		DSH028WB	J5H028WL	J5H028WC	H135-01	H135-02
: EUROFINS EATON ANALYTICAL : 380-59313									C.
Client Project		Client	Sample ID		MBI K1W	LCS1W	LCD1W	380-59313-	380-59313-2

FN · Filename % Moist · Percent Moisture

ID 313-1 313-2	
Client Sample J MBLKIW LCSIW LCDIW 380-5931	i

Lab Control Sample (LCS) LCS Duplicate

23DSH028W Method Blank Notes

> LH28005A LH28005A

LH28009A

08/24/2314:00

Calibration Prep. Data FN Batch

Sample Data FN

Extraction DateTime

Analysis DateTime

Moist

Laboratory Dilution Sample ID Factor

: EUROFINS EATON ANALYTICAL : 380-59313

Client Project

WATER

23DSH028W Lab Control San 23DSH028W LCS Duplicate 23DSH028W Field Sample 23DSH028W Field Sample

LH28005A LH28005A LH28005A

LH28014A LH28015A LH28016A LH28017A

08/24/2314:00 08/24/2314:00 08/24/2314:00 08/24/2314:00

08/28/2319:20 08/28/2320:53 08/28/2321:12 08/28/2321:31 08/28/2321:50

\$\$\$\$\$

J8H028WL J8H028WC H135-01 H135-02

DSH028WB

: 23H135 : D5

Instrument ID SDG NO.

FN - Filename % Moist - Percent Moisture

SAMPLE RESULTS

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Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 11:14

Project : 380-59313 Date Received: 08/17/23 Batch No. : 23H135 Date Extracted: 08/24/23 14:00

Sample ID : 380-59313-1 Date Analyzed: 08/28/23 21:31 Lab Samp ID: 23H135-01 Dilution Factor: 1

Lab File ID: LH28016A Matrix: WATER Ext Btch ID: 23DSH028W % Moisture: NA

Calib. Ref.: LH28003A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel Motor Oil	ND ND	0.027 0.053	0.013	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene Hexacosane	0.380 0.109	0.530 0.132	72 83	60-130 60-130

Notes:

Parameter H-C Range Diesel C10-C24 Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 940ml Final Volume : 5ml

Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 11:14

: 380-59313 Date Received: 08/17/23 Project

Batch No. : 23H135 Date Extracted: 08/24/23 14:00 Sample ID : 380-59313-1 Date Analyzed: 08/28/23 21:31

Dilution Factor: 1 Lab Samp ID: 23H135-01

Lab File ID: LH28016A Matrix: WATER Ext Btch ID: 23DSH028W % Moisture: NA Calib. Ref.: LH28004A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.053	0.027	·
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene Hexacosane	0.380 0.109	0.530 0.132	72 83	60·130 60·130

Notes:

RL : Reporting Limit H-C Range Parameter

JP5 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Final Volume : 5ml Sample Amount : 940ml

Analyzed by : SDeeso Prepared by : RGalan

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 11:14

: 380-59313 Project Date Received: 08/17/23 Batch No. : 23H135 Date Extracted: 08/24/23 14:00 Sample ID : 380-59313-1 Date Analyzed: 08/28/23 21:31

Lab Samp ID: 23H135-01 Dilution Factor: 1

Matrix: WATER Lab File ID: LH28016A Ext Btch ID: 23DSH028W % Moisture: NA Instrument ID: D5 Calib. Ref.: LH28005A

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
JP8	ND	0.053	0.027		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.380	0.530	72	60-130	•
Hexacosane	0.109	0.132	83	60-130	

Notes:

RL : Reporting Limit H-C Range Parameter

JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Final Volume : 5ml Sample Amount : 940ml

Analyzed by : SDeeso Prepared by : RGalan

METHOD 3520C/8015B TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Date Collected: 08/14/23 10:32 Client : EUROFINS EATON ANALYTICAL

Project : 380-59313 Date Received: 08/17/23 Date Extracted: 08/24/23 14:00 Batch No. : 23H135 Sample ID : 380-59313-2 Date Analyzed: 08/28/23 21:50

Dilution Factor: 1 Lab Samp ID: 23H135-02 Lab File ID: LH28017A Matrix: WATER

% Moisture: NA Ext Btch ID: 23DSH028W Calib. Ref.: LH28003A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.027	0.014	
Motor Oil	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.404	0.545	74	60-130
Hexacosane	0.113	0.136	83	60-130

Notes:

Parameter H-C Range C10-C24 Diesel C24-C36 Motor Oil

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml

Final Volume : 5ml

Prepared by

: RGalan

Analyzed by : SDeeso

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 10:32

 Project
 : 380-59313
 Date Received: 08/17/23

 Batch No.
 : 23H135
 Date Extracted: 08/24/23 14:00

 Sample ID
 : 380-59313-2
 Date Analyzed: 08/28/23 21:50

 Lab Samp ID: 23H135-02
 Dilution Factor: 1

Lab File ID: LH28017A Matrix: WATER Ext Btch ID: 23DSH028W % Moisture: NA

Calib. Ref.: LH28004A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene Hexacosane	0.404 0.113	0.545 0.136	74 83	60-130 60-130

Notes:

RL: Reporting Limit
Parameter H-C Range
JP5 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml

Final Volume : 5ml

Prepared by : RGalan Analyzed by : SDeeso

: EUROFINS EATON ANALYTICAL

Date Collected: 08/14/23 10:32

Project : 380-59313

Client

Date Received: 08/17/23

Batch No. : 23H135 Sample ID : 380-59313-2 Date Extracted: 08/24/23 14:00 Date Analyzed: 08/28/23 21:50

Lab Samp ID: 23H135-02 Lab File ID: LH28017A

Dilution Factor: 1 Matrix: WATER

Ext Btch ID: 23DSH028W Calib. Ref.: LH28005A

% Moisture: NA Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene Hexacosane	0.404 0.113	0.545 0.136	74 83	60-130 60-130

Notes:

RL: Reporting Limit

Parameter H-C Range

JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml

Final Volume : 5ml

Prepared by : RGalan Analyzed by : SDeeso

QC SUMMARIES

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METHOD 3520C/8015B TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/24/23 14:00

Project : 380-59313 Date Received: 08/24/23 Batch No. : 23H135 Date Extracted: 08/24/23 14:00 Sample ID : MBLK1W Date Analyzed: 08/28/23 19:20

Lab Samp ID: DSH028WB Dilution Factor: 1 Lab File ID: LH28009A Matrix: WATER Ext Btch ID: 23DSH028W % Moisture: NA

Calib. Ref.: LH28003A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.025	0.012	
Motor Oil	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	*RECOVERY	QC LIMIT
Bromobenzene	0.370	0.500	74	60-130
Hexacosane	0.0946	0.125	76	60-130

Notes:

Parameter H-C Range C10-C24 Diesel C24-C36 Motor Oil

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml

Final Volume : 5ml

Prepared by

: RGalan

Analyzed by : SDeeso

CLIENT

: EUROFINS EATON ANALYTICAL

PROJECT

: 380-59313

BATCH NO.

: 23H135

METHOD

: 3520C/8015B

MAT	RIX
>	

: WATER

% MOISTURE:NA

DILUTION FACTOR: 1

1

SAMPLE ID

: MBLK1W

LCS1W

1 LCD1W

LAB SAMPLE ID : DSH028WB LAB FILE ID

: LH28009A

DSH028WL LH28010A DSH028WC LH28011A

DATE ANALYZED : 08/28/23 19:20

DATE PREPARED : 08/24/23 14:00

08/24/23 14:00 08/28/23 19:39

08/24/23 14:00 08/28/23 19:57

PREP BATCH CALIBRATION REF: LH28003A

: 23DSH028W

23DSH028W

23DSH028W

LH28003A

LH28003A

ACCESSION:

LCDResult LCDRec OCLimit MaxRPD LCSResult LCSRec SpikeAmt **RPD** MBResult SpikeAmt (%) (%) **PARAMETERS** (mg/L) (mg/L) (mg/L) (%) (mg/L) (mg/L) (%) (%) 74 2 50-130 30 Diesel ND 2.50 1.89 76 2.50 1.85

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.360	72	0.500	0.336	67	60-130
Hexacosane	0.125	0.105	84	0.125	0.0977	78	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/24/23 14:00

Project : 380-59313 Date Received: 08/24/23

Batch No. : 23H135 Date Extracted: 08/24/23 14:00 Sample ID : MBLK1W Date Analyzed: 08/28/23 19:20

Lab Samp ID: DSH028WB Dilution Factor: 1

Lab File ID: LH28009A Matrix: WATER Ext Btch ID: 23DSH028W % Moisture: NA Calib. Ref.: LH28004A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene Hexacosane	0.370 0.0946	0.500 0.125	74 76	60-130 60-130

Notes:

RL : Reporting Limit H-C Range Parameter

C8-C18 JP5

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Final Volume : 5ml Sample Amount : 1000ml

Prepared by : RGalan Analyzed by : SDeeso

CLIENT

: EUROFINS EATON ANALYTICAL

PROJECT

: 380-59313

BATCH NO.

: 23H135

METHOD

: 3520C/8015B

MATRIX

: WATER

% MOISTURE:NA

DILUTION FACTOR: 1

: MBLK1W

1 LCS1W 1

SAMPLE ID LAB SAMPLE ID : DSH028WB

J5H028WL

LCD1W

LAB FILE ID

: LH28009A

LH28012A

J5H028WC LH28013A

DATE PREPARED : 08/24/23 14:00

08/24/23 14:00

08/24/23 14:00

PREP BATCH

DATE ANALYZED : 08/28/23 19:20 : 23DSH028W

08/28/23 20:16 23DSH028W

08/28/23 20:35 23DSH028W

CALIBRATION REF: LH28004A

LH28004A

(mg/L)

MBResult SpikeAmt

(mg/L)

LH28004A

ACCESSION:

LCDResult LCDRec RPD QCLimit MaxRPD

PARAMETERS

LCSResult LCSRec SpikeAmt (mg/L) (%) (mg/L)(mg/L) (%) (%) (%) (%)

ND 62 2.50 30-160 30 JP5 2.50 1.55 1.81 72 15

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.341	68	0.500	0.384	77	60-130
Hexacosane	0.125	0.0984	79	0.125	0.105	84	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

: EUROFINS EATON ANALYTICAL Date Collected: 08/24/23 14:00

: 380-59313 Date Received: 08/24/23 Project Batch No.: 23H135 Date Extracted: 08/24/23 14:00 Sample ID : MBLK1W Date Analyzed: 08/28/23 19:20

Lab Samp ID: DSH028WB Dilution Factor: 1 Matrix: WATER Lab File ID: LH28009A

Ext Btch ID: 23DSH028W % Moisture: NA Calib. Ref.: LH28005A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.370	0.500	74	60-130
Hexacosane	0.0946	0.125	76	60-130

Notes:

Client

RL: Reporting Limit H-C Range Parameter JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml

Final Volume : 5ml Analyzed by : SDeeso : RGalan

Prepared by

CLIENT

: EUROFINS EATON ANALYTICAL

PROJECT

: 380-59313

BATCH NO.

: 23H135

METHOD

: 3520C/8015B

MATRIX

: WATER

1

% MOISTURE:NA

DILUTION FACTOR: 1

: MBLK1W

LCS1W

1.

SAMPLE ID LAB SAMPLE ID : DSH028WB

J8H028WL

LCD1W

LAB FILE ID

: LH28009A

LH28014A

J8H028WC

DATE PREPARED : 08/24/23 14:00

LH28015A

08/24/23 14:00

08/24/23 14:00

DATE ANALYZED : 08/28/23 19:20

08/28/23 20:53

08/28/23 21:12

PREP BATCH

: 23DSH028W

23DSH028W

23DSH028W

CALIBRATION REF: LH28005A

LH28005A

LH28005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	•	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.50	2.63	105	2.50	2.31	92	13	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.461	92	0.500	0.396	79	60-130
Hexacosane	0.125	0.101	81	0.125	0.0901	72	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

REPORT ID: 23H135

Page 37 of 37



September 25, 2023

Rachelle Arada **Eurofins Eaton Analytical** 750 Royal Oaks Drive Suite 100 Monrovia, CA 91016-

Red-HILL Project # 38001111 Job # 380-59313-1 Project Name:

Physis Project ID: 1407003-436

Dear Rachelle,

Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 8/17/2023. A total of 2 samples were received for analysis in accordance with the attached chain of custody (COC). Per the COC, the samples were analyzed for:

Organics				
Polynuclear Aromatic Hydrocarbons by EPA 625.1				
Disalicylidenepropanediamine by EPA 625.1				
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1				

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,

Rachel Hansen 714 602-5320 Extension 203 rachelhansen@physislabs.com



PROJECT SAMPLE LIST

Eurofins Eaton Analytical

109841

Red-HILL Project # 38001111 Job # 380-59313-1

AIEA GULCH WELLS PUMP 2

PHYSIS Project ID: 1407003-436

Total Samples: 2

8/14/2023 10:32 Samplewater Not Specified

	, -				•	
PHYSIS ID	Sample ID	Description	Date	Time	Matrix Sample	Туре
109840 AIE	EA WELLS PUMPS 1&2 (26	60) P2 380-59313-1	8/14/2023	11:14	Samplewater Not Spe	ecified

380-59313-2

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ABBREVIATIONS and ACRONYMS

QM	Quality Manual
QA	Quality Assurance
QC	Quality Control
MDL	method detection limit
RL	reporting limit
R1	project sample
R2	project sample replicate
MS1	matrix spike
MS2	matrix spike replicate
B1	procedural blank
B2	procedural blank replicate
BS1	blank spike
BS2	blank spike replicate
LCS1	laboratory control spike
LCS2	laboratory control spike replicate
LCM1	laboratory control material
LCM2	laboratory control material replicate
CRM1	certified reference material
CRM2	certified reference material replicate
RPD	relative percent difference
LMW	low molecular weight
HMW	high molecular weight



QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS1/MS2, BS1/BS2, LCS1/LCS2, LCM1/LCM2, CRM1/CRM2, surrogate spikes and/or replicate project sample analysis (R1/R2) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

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SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.



PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
В	analyte was detected in the procedural blank greater than 10 times the MDL
E	analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated
Н	sample received and/or analyzed past the recommended holding time
J	analyte was detected at a concentration below the RL and above the MDL, reported value is estimated
N	insufficient sample, analysis could not be performed
M	analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification
SH	analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply
SL	analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply
NH	project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply
Q	analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification
R	Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples

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CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported are ND at the RL.

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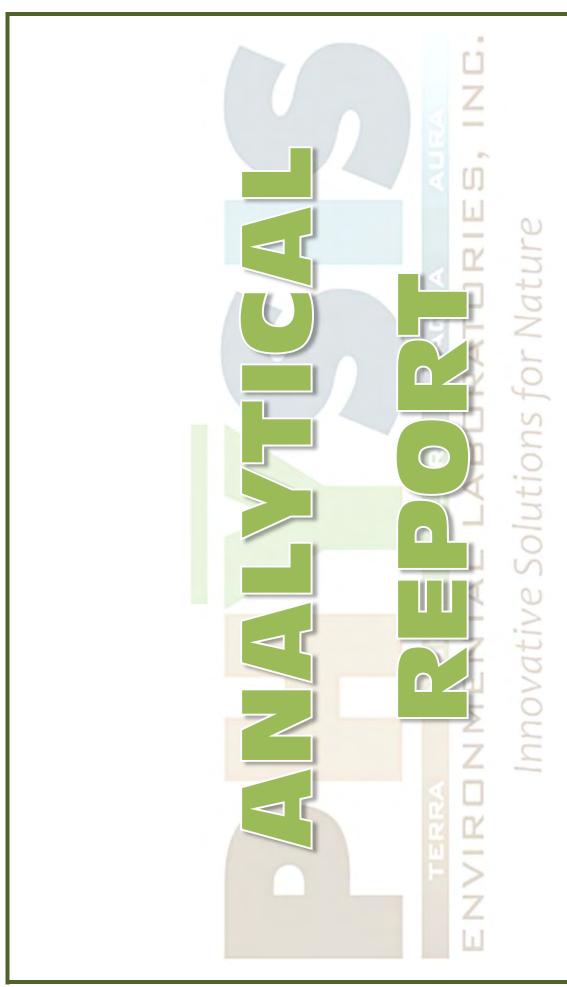
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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Base/Neutral Extractable Compounds											
ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 109840-R1	Sampled:	14-Aug-23	11:14	Received:	17-Aug-23						
Disalicylidenepropanediamine	EPA 625.1	μg/L	ND	1	0.05	0.1	Total		O-42060	21-Aug-23	24-Sep-23
Sample ID: 109841-R1	Sampled:	14-Aug-23	10:32	Received:	17-Aug-23						
Disalicylidenepropanediamine	EPA 625.1	μg/L	ND	1	0.05	0.1	Total		0-42060	21-Aug-23	24-Sep-23

11/22/2023



Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE Batch ID	Date Processed	Date Analyzed
Sample ID: 109840-R1	AIEA WELLS PUMPS 18	k2 (260) P2 3 M	atrix: Sampl	ewateı	,		Sampled:	14-Aug-23 11:14	Received:	17-Aug-23
(d10-Acenaphthene)	EPA 625.1	% Recovery	56	1			Total	O-42060	21-Aug-23	24-Sep-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	65	1			Total	0-42060	21-Aug-23	24-Sep-23
(d12-Chrysene)	EPA 625.1	% Recovery	75	1			Total	0-42060	21-Aug-23	24-Sep-23
(d12-Perylene)	EPA 625.1	% Recovery	72	1			Total	0-42060	21-Aug-23	24-Sep-23
(d8-Naphthalene)	EPA 625.1	% Recovery	47	1			Total	O-42060	21-Aug-23	24-Sep-23
1-Methylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
1-Methylphenanthrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
2,3,5-Trimethylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
2,6-Dimethylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
2-Methylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Acenaphthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Acenaphthylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benz[a]anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[a]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[b]fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[e]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[g,h,i]perylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[k]fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Biphenyl	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Chrysene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenz[a,h]anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenzo[a,l]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenzothiophene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	O-42060	21-Aug-23	24-Sep-23

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CA ELAP #2769

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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Polynuclear Aromatic Hydrocarbons											
ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE Batch ID	Date Processed	Date Analyzed	
Fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Fluorene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Indeno[1,2,3-cd]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Naphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Perylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Phenanthrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	

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PHYSIS Project ID: 1407003-436 **Client: Eurofins Eaton Analytical**

Project: Red-HILL Project # 38001111 Job # 380-59313-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE Batch ID	Date Processed	Date Analyzed
Sample ID: 109841-R1	AIEA GULCH WELLS PU	JMP 2 380-5 M	latrix: Sampl	ewateı			Sampled:	14-Aug-23 10:32	Received:	17-Aug-23
(d10-Acenaphthene)	EPA 625.1	% Recovery	74	1			Total	0-42060	21-Aug-23	24-Sep-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	82	1			Total	0-42060	21-Aug-23	24-Sep-23
(d12-Chrysene)	EPA 625.1	% Recovery	82	1			Total	0-42060	21-Aug-23	24-Sep-23
(d12-Perylene)	EPA 625.1	% Recovery	77	1			Total	0-42060	21-Aug-23	24-Sep-23
(d8-Naphthalene)	EPA 625.1	% Recovery	66	1			Total	0-42060	21-Aug-23	24-Sep-23
1-Methylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
1-Methylphenanthrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	O-42060	21-Aug-23	24-Sep-23
2,3,5-Trimethylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
2,6-Dimethylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	O-42060	21-Aug-23	24-Sep-23
2-Methylnaphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Acenaphthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	O-42060	21-Aug-23	24-Sep-23
Acenaphthylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benz[a]anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[a]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[b]fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[e]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[g,h,i]perylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Benzo[k]fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Biphenyl	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Chrysene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenz[a,h]anthracene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenzo[a,l]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
Dibenzothiophene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23
								•	- 0)	1

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11/22/2023

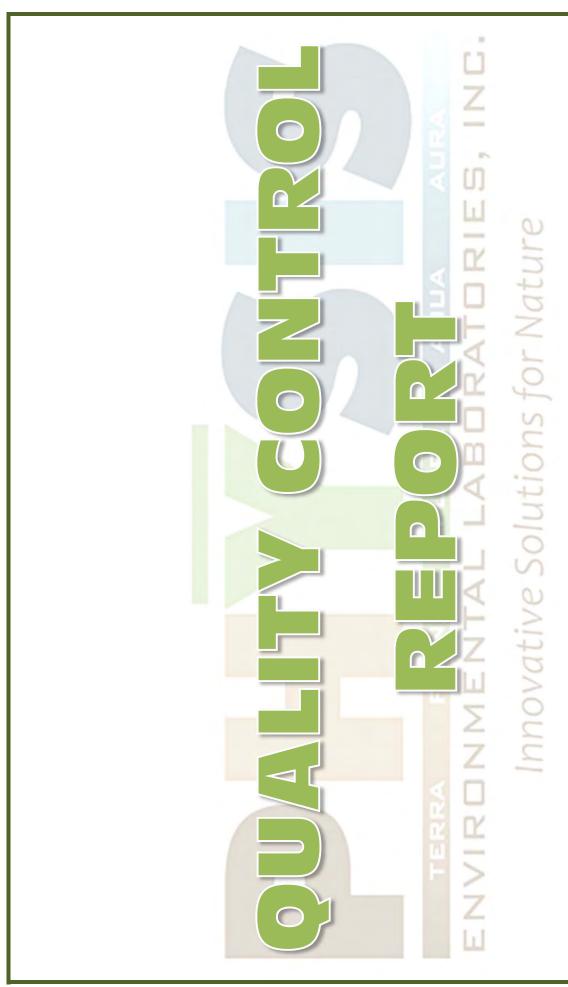


Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Polynuclear Aromatic Hydrocarbons											
ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE Batch ID	Date Processed	Date Analyzed	
Fluoranthene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Fluorene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Indeno[1,2,3-cd]pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Naphthalene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Perylene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Phenanthrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	
Pyrene	EPA 625.1	μg/L	ND	1	0.001	0.005	Total	0-42060	21-Aug-23	24-Sep-23	

11/22/2023





Project: Red-HILL Project # 38001111 Job # 380-59313-1

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

Dus	, , , , , ,	uti	ai LAU d	icta	DIC C	omp	ounds			901	LIII CON	1110		
ANALYTE	FRA	TION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE		ACCURACY	PF	RECISION	QA CODEc
								LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 109	839-B1	QA	QC Procedur	al Bla	nk		Matrix:	BlankMatri	x Sa	mpled:			Received:	
		Met	thod: EPA 625.1				Batch ID:	O-42060	F	repared:	21-Aug-23		Analyzed: 23	3-Sep-23
Disalicylidenepropanediami	ine To	tal	ND	1	0.05	0.1	μg/L							
Sample ID: 109	839-BS1	QA	QC Procedur	al Bla	nk		Matrix:	BlankMatri	x Sa	mpled:		l	Received:	
Sample ID: 109	839-BS1	•	QC Procedur		nk		Matrix:			mpled:	21-Aug-23		Received: Analyzed: 24	Į-Sep-23
Sample ID: 109 Disalicylidenepropanediami		Met	•		nk 0.05	0.1				-	21-Aug-23 50 - 150% PAS			1-Sep-23
	ine To	Met tal	thod: EPA 625.1	1	0.05	0.1	Batch ID: (µg/L	O-42060	0 0	repared:	0 -	SS		1-Sep-23
Disalicylidenepropanediami	ine To	Met tal QA	thod: EPA 625.1 40.5	1 al Bla	0.05	0.1	Batch ID: (µg/L	O-42060 50 BlankMatri	0 x Sa	repared: 81 mpled:	0 -	SS	Analyzed: 24	

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ACCURACY

Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

FRACTION

ANALYTE

Polynuclear Aromatic Hydrocarbons

RESULT DF MDL

RL

UNITS

SPIKE SOURCE

QUALITY CONTROL REPORT

PRECISION

							LEVEL P	ESULT %	LIMITS	5 % LIMITS
Sample ID: 109839	9-B1 Q/	AQC Proced	ural Blank			Matrix: Bla	nkMatrix	Sampled	:	Received:
	Me	ethod: EPA 625	.1			Batch ID: O-42	060	Prepared	l: 21-Aug-23	Analyzed: 23-Sep-23
(d10-Acenaphthene)	Total	88	1			% Recovery	100	88	27 - 133%	PASS
(d10-Phenanthrene)	Total	95	1			% Recovery	100	95	43 - 129%	PASS
(d12-Chrysene)	Total	92	1			% Recovery	100	92	52 - 144%	PASS
(d12-Perylene)	Total	92	1			% Recovery	100	92	36 - 161%	PASS
(d8-Naphthalene)	Total	79	1			% Recovery	100	79	25 - 125%	PASS
1-Methylnaphthalene	Total	ND	1	0.001	0.005	μg/L				
1-Methylphenanthrene	Total	ND	1	0.001	0.005	μg/L				
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	μg/L				
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	μg/L				
2-Methylnaphthalene	Total	ND	1	0.001	0.005	μg/L				
Acenaphthene	Total	ND	1	0.001	0.005	μg/L				
Acenaphthylene	Total	ND	1	0.001	0.005	μg/L				
Anthracene	Total	ND	1	0.001	0.005	μg/L				
Benz[a]anthracene	Total	ND	1	0.001	0.005	μg/L				
Benzo[a]pyrene	Total	ND	1	0.001	0.005	μg/L				
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	μg/L				
Benzo[e]pyrene	Total	ND	1	0.001	0.005	μg/L				
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	μg/L				
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	μg/L				
Biphenyl	Total	ND	1	0.001	0.005	μg/L				
Chrysene	Total	ND	1	0.001	0.005	μg/L				
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	μg/L				
Dibenzo[a,I]pyrene	Total	ND	1	0.001	0.005	μg/L				

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QA CODEc

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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Pol	ynuclear	Aroma	tic	Hydro	ocarl	bons		Q	UAI	LITY CON	NTROL	REPO	RT
ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	A	CCURACY	PRE	CISION	QA CODEc
Dibenzothiophene	Total	ND	1	0.001	0.005	μg/L		1125021	70	2	75		
Fluoranthene	Total	ND	1	0.001	0.005	μg/L							
Fluorene	Total	ND	1	0.001	0.005	μg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	μg/L							
Naphthalene	Total	ND	1	0.001	0.005	μg/L							
Perylene	Total	ND	1	0.001	0.005	μg/L							
Phenanthrene	Total	ND	1	0.001	0.005	μg/L							
Pyrene	Total	ND	1	0.001	0.005	μg/L							

11/22/2023



ACCURACY

Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

FRACTION

ANALYTE

Polynuclear Aromatic Hydrocarbons

RESULT DF MDL

QUALITY CONTROL REPORT

PRECISION

							LEVEL	RESULT	%	LIMITS	% LIMITS	
Sample ID: 10983	9-BS1 QAC	QC Procedur	al Blank			Matrix: Bla	ınkMatrix	Sam	pled:		Received:	
	Meth	nod: EPA 625.1				Batch ID: O-4	2060	Pre	pared: 2	1-Aug-23	Analyzed: 24-	Sep-23
(d10-Acenaphthene)	Total	90	1			% Recovery	100	0	90	27 - 133% PASS		
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	43 - 129% PASS		
(d12-Chrysene)	Total	94	1			% Recovery	100	0	94	52 - 144% PASS		
(d12-Perylene)	Total	96	1			% Recovery	100	0	96	36 - 161% PASS		
(d8-Naphthalene)	Total	84	1			% Recovery	100	0	84	25 - 125% PASS		
1-Methylnaphthalene	Total	0.431	1	0.001	0.005	μg/L	0.5	0	86	31 - 128% PASS		
1-Methylphenanthrene	Total	0.46	1	0.001	0.005	μg/L	0.5	0	92	66 - 127% PASS		
2,3,5-Trimethylnaphthalene	Total	0.451	1	0.001	0.005	μg/L	0.5	0	90	55 - 122% PASS		
2,6-Dimethylnaphthalene	Total	0.451	1	0.001	0.005	μg/L	0.5	0	90	48 - 120% PASS		
2-Methylnaphthalene	Total	0.436	1	0.001	0.005	μg/L	0.5	0	87	47 - 130% PASS		
Acenaphthene	Total	0.451	1	0.001	0.005	μg/L	0.5	0	90	53 - 131% PASS		
Acenaphthylene	Total	0.455	1	0.001	0.005	μg/L	0.5	0	91	43 - 140% PASS		
Anthracene	Total	0.402	1	0.001	0.005	μg/L	0.5	0	80	58 - 135% PASS		
Benz[a]anthracene	Total	0.447	1	0.001	0.005	μg/L	0.5	0	89	55 - 145% PASS		
Benzo[a]pyrene	Total	0.477	1	0.001	0.005	μg/L	0.5	0	95	51 - 143% PASS		
Benzo[b]fluoranthene	Total	0.435	1	0.001	0.005	μg/L	0.5	0	87	46 - 165% PASS		
Benzo[e]pyrene	Total	0.421	1	0.001	0.005	μg/L	0.5	0	84	42 - 152% PASS		
Benzo[g,h,i]perylene	Total	0.462	1	0.001	0.005	μg/L	0.5	0	92	63 - 133% PASS		
Benzo[k]fluoranthene	Total	0.454	1	0.001	0.005	μg/L	0.5	0	91	56 - 145% PASS		
Biphenyl	Total	0.457	1	0.001	0.005	μg/L	0.5	0	91	56 - 119% PASS		
Chrysene	Total	0.442	1	0.001	0.005	μg/L	0.5	0	88	56 - 141% PASS		
Dibenz[a,h]anthracene	Total	0.427	1	0.001	0.005	μg/L	0.5	0	85	55 - 150% PASS		
Dibenzo[a,l]pyrene	Total	0.544	1	0.001	0.005	μg/L	0.5	0	109	50 - 150% PASS		

UNITS

SPIKE SOURCE

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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Pol	ynuclear <i>i</i>	Aroma	tic	Hydro	ocarl	bons		C	QUA	LITY CONT	ROL	REPO	RT
ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE		ACCURACY	PR	ECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.472	1	0.001	0.005	μg/L	0.5	0	94	46 - 126% PASS			
Fluoranthene	Total	0.462	1	0.001	0.005	μg/L	0.5	0	92	60 - 146% PASS			
Fluorene	Total	0.451	1	0.001	0.005	μg/L	0.5	0	90	58 - 131% PASS			
Indeno[1,2,3-cd]pyrene	Total	0.365	1	0.001	0.005	μg/L	0.5	0	73	50 - 151% PASS			
Naphthalene	Total	0.437	1	0.001	0.005	μg/L	0.5	0	87	41 - 126% PASS			
Perylene	Total	0.426	1	0.001	0.005	μg/L	0.5	0	85	48 - 141% PASS			
Phenanthrene	Total	0.464	1	0.001	0.005	μg/L	0.5	0	93	67 - 127% PASS			
Pyrene	Total	0.453	1	0.001	0.005	μg/L	0.5	0	91	54 - 156% PASS			

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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTI	ON RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE		ACCURACY	PR	ECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 1098	39-BS2	QAQC Procedura	al Blar	nk		Matrix: Bla	ankMatri	x Sam	pled:		R	eceived:	
		Method: EPA 625.1				Batch ID: O-4	2060	Pre	pared: 2	21-Aug-23		Analyzed: 24	-Sep-23
(d10-Acenaphthene)	Total	94	1			% Recovery	100	0	94	27 - 133% PASS	4	30 PASS	
(d10-Phenanthrene)	Total	100	1			% Recovery	100	0	100	43 - 129% PASS	5	30 PASS	
(d12-Chrysene)	Total	98	1			% Recovery	100	0	98	52 - 144% PASS	4	30 PASS	
(d12-Perylene)	Total	99	1			% Recovery	100	0	99	36 - 161% PASS	3	30 PASS	
(d8-Naphthalene)	Total	87	1			% Recovery	100	0	87	25 - 125% PASS	4	30 PASS	
1-Methylnaphthalene	Total	0.453	1	0.001	0.005	μg/L	0.5	0	91	31 - 128% PASS	6	30 PASS	
1-Methylphenanthrene	Total	0.463	1	0.001	0.005	μg/L	0.5	0	93	66 - 127% PASS	1	30 PASS	
2,3,5-Trimethylnaphthalene	Total	0.459	1	0.001	0.005	μg/L	0.5	0	92	55 - 122% PASS	2	30 PASS	
2,6-Dimethylnaphthalene	Total	0.453	1	0.001	0.005	μg/L	0.5	0	91	48 - 120% PASS	1	30 PASS	
2-Methylnaphthalene	Total	0.44	1	0.001	0.005	μg/L	0.5	0	88	47 - 130% PASS	1	30 PASS	
Acenaphthene	Total	0.457	1	0.001	0.005	μg/L	0.5	0	91	53 - 131% PASS	1	30 PASS	
Acenaphthylene	Total	0.464	1	0.001	0.005	μg/L	0.5	0	93	43 - 140% PASS	2	30 PASS	
Anthracene	Total	0.457	1	0.001	0.005	μg/L	0.5	0	91	58 - 135% PASS	13	30 PASS	
Benz[a]anthracene	Total	0.451	1	0.001	0.005	μg/L	0.5	0	90	55 - 145% PASS	1	30 PASS	
Benzo[a]pyrene	Total	0.48	1	0.001	0.005	μg/L	0.5	0	96	51 - 143% PASS	1	30 PASS	
Benzo[b]fluoranthene	Total	0.438	1	0.001	0.005	μg/L	0.5	0	88	46 - 165% PASS	1	30 PASS	
Benzo[e]pyrene	Total	0.434	1	0.001	0.005	μg/L	0.5	0	87	42 - 152% PASS	4	30 PASS	
Benzo[g,h,i]perylene	Total	0.458	1	0.001	0.005	μg/L	0.5	0	92	63 - 133% PASS	0	30 PASS	
Benzo[k]fluoranthene	Total	0.448	1	0.001	0.005	μg/L	0.5	0	90	56 - 145% PASS	1	30 PASS	
Biphenyl	Total	0.465	1	0.001	0.005	μg/L	0.5	0	93	56 - 119% PASS	2	30 PASS	
Chrysene	Total	0.443	1	0.001	0.005	μg/L	0.5	0	89	56 - 141% PASS	1	30 PASS	
Dibenz[a,h]anthracene	Total	0.452	1	0.001	0.005	μg/L	0.5	0	90	55 - 150% PASS	6	30 PASS	
Dibenzo[a,l]pyrene	Total	0.544	1	0.001	0.005	μg/L	0.5	0	109	50 - 150% PASS	0	30 PASS	

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CA ELAP #2769

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Project: Red-HILL Project # 38001111 Job # 380-59313-1

Innovative Solutions for Nature

Pol	ynuclear <i>i</i>	Aroma	itic	Hydro	ocarl	bons		C	QUA	LITY CONT	ROL	REPO	RT
ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE		ACCURACY	PR	ECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.476	1	0.001	0.005	μg/L	0.5	0	95	46 - 126% PASS	1	30 PASS	
Fluoranthene	Total	0.475	1	0.001	0.005	μg/L	0.5	0	95	60 - 146% PASS	3	30 PASS	
Fluorene	Total	0.462	1	0.001	0.005	μg/L	0.5	0	92	58 - 131% PASS	2	30 PASS	
Indeno[1,2,3-cd]pyrene	Total	0.37	1	0.001	0.005	μg/L	0.5	0	74	50 - 151% PASS	1	30 PASS	
Naphthalene	Total	0.436	1	0.001	0.005	μg/L	0.5	0	87	41 - 126% PASS	0	30 PASS	
Perylene	Total	0.426	1	0.001	0.005	μg/L	0.5	0	85	48 - 141% PASS	0	30 PASS	
Phenanthrene	Total	0.473	1	0.001	0.005	μg/L	0.5	0	95	67 - 127% PASS	2	30 PASS	
Pyrene	Total	0.462	1	0.001	0.005	μg/L	0.5	0	92	54 - 156% PASS	1	30 PASS	

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Innovative Solutions for Nature

Sample ID: Lab Blank B1_42060

	Area				
Retention	(% of	Concentration			Match Quality
Time	total)	(ng/L)	Library/ID	Cas Number	(%)
33.3045	5.7776	1111	Anthracene-D10-	1517-22-2	95
22.6704	9.8939	1903	Butylated Hydroxytoluene	128-37-0	98
10.0543	3.0543	587	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	89
21.1522	2.5444	489	2,6-Di-tert-butyl-4-hydroxy-4-methylcyclohexa-2,5-dien-1-one	10396-80-2	91
48.1120	2.5355	488	Eicosyl acetate	822-24-2	90
27.7666	0.6990	134	Hexanoic acid, 3,5,5-trimethyl-, 2-ethylhexyl ester	1000406-82-2	96

Concentration estimated using the response for Anthracene-d10

- 5

Sample ID: 109840

	Retention	Area (% of	Concentration			Match Quality
l	Time	total)	(ng/L)	Library/ID	Cas Number	(%)
	33.3065	8.0238	1111	Anthracene-D10-	1517-22-2	95
ſ	10.0564	5.7475	796	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	89
ſ	22.6668	2.7248	377	Butylated Hydroxytoluene	128-37-0	97

Concentration estimated using the response for Anthracene-d10

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Sample ID: 109841

	Area				
Retention	(% of	Concentration			Match Quality
Time	total)	(ng/L)	Library/ID	Cas Number	(%)
33.3019	7.1870	1111	Anthracene-D10-	1517-22-2	95
10.0573	6.5455	1012	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	89
22.6673	2.2174	343	Butylated Hydroxytoluene	128-37-0	97
10.3720	1.0250	158	Cyclopropane, 1,1,2,3-tetramethyl-	74752-93-5	85
27.7643	0.9048	140	Hexanoic acid, 3,5,5-trimethyl-, 2-ethylhexyl ester	1000406-82-2	96

Concentration estimated using the response for Anthracene-d10

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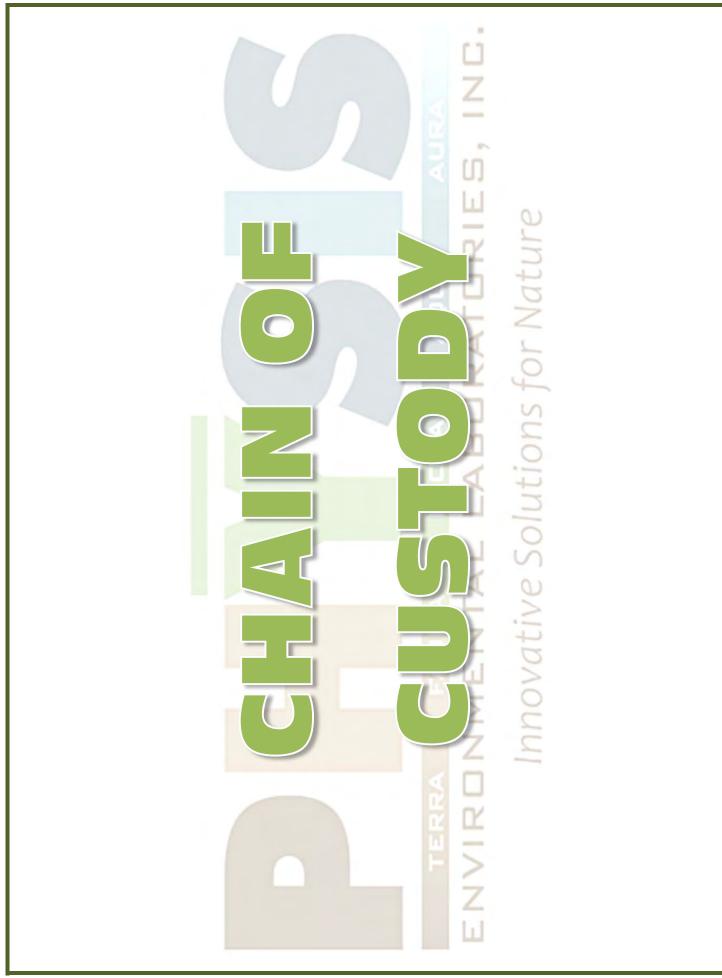
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Chain of Custody Record

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Eurofins Eaton Analytical Pomona 941 Corporate Center Drive Pomona, CA 91768-2642	c	Chain of Custody Record	ıstody Re			seurofins	Environment Testing
	Sampler:		Lab PM: Arada	Lab PM: Arada Rachelle	Carrier Tracking No(s):	COC No: 380-71294.1	
Client Contact: Client	Phone:		E-Mail: Rache	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1	
Company: Physis Environmental Laboratories			(0 P	Accreditations Required (See note): State - Hawaii		Job#: 380-59313-1	
Address:	Due Date Requested: 8/25/2023	e.		Analysis	Requested	Cod	
City: Anaheim	TAT Requested (days):	ys):				A - HCL N - None B - NaOH O - AsNaO2 C - Zn Acetate P - Na2OAS	
State, Zip: CA, 92806				5 PAH			
Phone:	PO #					8	cahydrate
Email:	WO#:		ar Na	lo)		J - Di Water	
Project Name: RED-HILL	Project #: 38001111		la (Va	es or l		ntaine N-EDIA Y-Trizma L-EDA Z-other (specify)	cify)
Site: Honoiulu BWS Sites	SSOW#:		Pame	SD (1 Physis		of co	
Comple Identification - Client III (1 sh II)	Sample	Sample (C=comp,	le (Watrix Seolid, Owestafoli, Owestafoli, Distribute Assat)	Perform MS/M SUB (625 PAH R Physis LL (EAL		Total Number Special Instructions/Note:	lote:
	V	4	ation Code:			X	
AIEA WELLS PUMPS 1&2 (260) P2 (380-59313-1)	8/14/23		Water	×		2 See Attached Instructions	
AIEA GULCH WELLS PUMP 2 (380-59313-2)	8/14/23	10:32	Water	×		2 See Attached Instructions	
Note: Struct laduration and soluption in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brough currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brough turners and the Eurofins Eaton Analytical, LLC.	is/tests/matrix being analyze itations are current to date,	ed, the samples must be return the signed Chain	shipped back to the E of Custody attesting t	urofins Eaton Analytical, LLC laboratory or oth o said compliance to Eurofins Eaton Analytical	er instructions will be provided. An LLC.	Any changes to accreditation status should be brought to	brought to
Possible Hazard Identification				Sample Disposal (A fee may be	assessed if samples are re	may be assessed if samples are retained longer than 1 month) Disposal By Lab Archive For Months	
Deliverable Requested: I, II, IV, Other (specify)	Primary Deliverable Rank: 2	ble Rank: 2		Requireme	nts:		
Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:		
Relinquished by: Relinquished by:	Date/Time: 8/12/23 Date/Time/	1120	Company	Received by: Received by:	Date/Time:	11: 20 Company	54
Relinquished by:	Date/Time:		Company	Received by:	Date/Time:	Company	
Custody Seal No.: Δ Yes Δ No				Cooler Temperature(s) °C and Other Remarks:	emarks:	Var. 06/08/2021	1091

TERRA FAUNA FLORA AGUA AUGA
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

1. Initials Received By: 2. Date Received: 3. Time Received: 4. Client Name: 5. Courier Information: (Please circle)	Bottle Label Color: NA	
2. Date Received: 8/17/3 3. Time Received: 1/20 4. Client Name: 54W 1nf		
2. Date Received: 8/17/3 3. Time Received: 1/20 4. Client Name: 54W 1nf		
4. Client Name: FUN FINS		
Client • UPS	Area Fast	• DRS
FedEx GSO/GLS	 Ontrac 	• PAMS
PHYSIS Driver:		- I AMS
i. Start Time:	iii. To	tal Mileage:
ii. End Time:		umber of Pickups:
6. Container Information: (Please put the # of		
• Cooler • Styrofoam Coo	oler •Boxes	• None
• Carboy(s) •Carboy Trash Carboy		o(s) • Other
1. Initials Inspected By: R. G. Imple Integrity Upon Receipt:		
COC(s) included and completely filled out		Van I
All sample containers arrived intact		
All samples listed on COC(s) are present		
4. Information on containers consistent with i		
5. Correct containers and volume for all analy		
All samples received within method holding		
Correct preservation used for all analyses in		
8. Name of sampler included on COC(s)	Y	es / (No)
	Notes:	

P:\Sample Logistics (SL)\SRS

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En normer Teamer ng : eurofins

Chain of Custody Record

Monrovia, CA (Suite 100)

750 Royal Oaks Drive Suite 100

Phone (626) 386-1100 Monrovia CA 91016

N - None
O - AsNaO2
P - Na2O4S
Q - Na2O3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate 7730 5995 825T Method of Shipment: FED EX (2) 7730 5995 8268 Special Instructions/Note: U - Acetone V - MCAA Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Ogoler Temperature(s) "C and Other Remarks (7914) CEC-FROZEN (035" 0.2" = 5" (2) 1.5" 0.2" = 13" COC No 380-27941-2757 2 Preservation Codes G - Amchlor H - Ascorbic Acıd 6.6 Page Page 1 of 2 A - HCL
B - NaOH
C - Zn Acetate
D - Nitro Acid
E - NaHSO4
F - MeOH J - DI Water - EDTA Archive For Total Number of containers 08/16/2023 Date/Time Date/Time 380-59313 COC Disposal By Lab State of Ongin Analysis Requested PETTNER Special Instructions/QC Requirements 637 1_DW_PREC - 637 1 Full List Lab PM Arada, Rachelle E-Mail Rachelle Arada@et euronisus com 0 4 4 N N SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) Return To Client SS 2_PREC - (MOD) 525plus PLUS TICs Æ 2 2 PUBCONTRACT - 8915 DIESELLL (EAL) and Motor Oil eceived by SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) 7 SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs Perform MS/MSD (Yes or No) Time Field Filtered Sample (Yes or No) BT=Tissue, A=Air Matrix Preservation Code Water Water Water Water Company Company HBWS Radiological (C=comp, G=grab) Sample Type d Sample Time C20525101 exp 05312023 1887 oN ∆ **B** Date Unknown (AT Requested (days) Sompliance Project Due Date Requested Phone 808-748-5840 14-Aug-2023 14-Aug-2023 14-Aug-2023 Sample Date 14-Aug-2023 Project #* 38001111 Date/Time Poison B RED-HILL/HBWS sites Event Desc. RUSH Weekly Red Hill Skin Imtant Deliverable Requested 1, III, IV, Other (specify) FB AIEA WELLS PUMPS 1&2 (260) AIEA WELLS PUMPS 1&2 (260) igoplus**FIGURE AND THE STATE OF THE ST** Address 630 South Beretania Street; Chemistry Lab Custody Seal No AIEA GULCH WELLS PUMP2 Flammable FIND O ROLLEY Empty Kit Relinquished by City & County of Honolulu fenstemacher@hbws org Client Contact: Dr. Ron Fenstermacher Custody Seals Intact △ Yes △ No Client Information Sample Identification 808-748-5091 (tel) linquished by elinguished by State, Zip HI 96843 Honolulu

Chain of Custody Record

Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016
Phone (626) 386-1100

Client Information	DI D	五		Arad	Arada, Rachelle	elle					·		380-279	380-27941-2757 2	
Client Contact: Dr. Ron Fenstermacher	Phone 808-748-5840			E-Mail Rach	ı nelle Ara	da@et	E-Mail Rachelle Arada@et euronisus com	moo sr		State of Ongin	ugn :		Page Page 2	of 2	
Company City & County of Honolulu			PWSID					Analysis	is Rec	Requested	_		.# qor		
Address 630 South Beretania Street, Chemistry Lab	Due Date Requested	ס											Preserva	Ų	0
Cıty. Honolulu	TAT Requested (days)	ys)			- E			(-					B - NaOF C - Zn Ac		2 0
State Zip HI, 96843	Compliance Project	oN A						143) T					D - Nitric		v & g
Phone 808-748-5091 (tel)	PO# C20525101 exp 05312023	05312023			(c		ns (JA						F - MeOH G - Amchlor H - Ascorbic Acid		S - H2SO4 T - TSP Dodecahydrate
Email <u>rfenstemacher@hbws.org</u>	·# OM						ו דר (בּ		İsil						0
Project Name RED-HILL/HBWS sites Event Desc. RUSH Weekly Red Hill	Project # 38001111						eseiQ ö		1 Full				rtainer L-EDA	Y - Trizma Z - other (specify)	pecify)
Site	.#MOSS						3168 - T					-	of cor		
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 Perform MS/M	SUBCONTRACT	SUBCONTRACT	SUBCONTRACT	533 1_DW_PRE				Total Number	Special Instructions/Note:	s/Note:
	\bigvee	\bigvee	1 @	Preservation Code		┼	₽ Z	+=	\vdash						
AIEA WELLS PUMPS 1&2 (260) PZ	14-Aug-2023	1114	t	Water					3 3					- Automotive	
AIEA GULCH WELLS PUMP2	14-Aug-2023	1082	t	Water					3						
FB AIEA WELLS PUMPS 1&2 (260)	14-Aug-2023	1114		Water					1					The state of the s	
FB AIEA GULCH WELLS PUMP2	14-Aug-2023	10827		Water					1						
Possible Hazard Identification Non-Hazard — Flammable — Skin Irritant — Pos	Poison B		Radiological		Sam	ple Dis ∃Retur	le Disposal (A f Return To Client	A fee m	ay be a \Box	assessed if Disposal By	if sample 3v Lab	s are ret	tained Ionge Archive For	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Retum To Client Disposal By Lab Archive For	6
sted I II, III, IV, Other					Spe	ial Inst	Special Instructions/QC Requirements	QC Rec	uremer	1			9	549	57
Empty Kit Relinquished by		Date			Time	-				Met	Method of Shipment: FEU EX	ent	\smile	l	65
	Pate/fine 12	2002	1400	Company HBWS		Received	X, q	Ü	PETINER	FR	Date/Time	Time (2023		IC-IC COMPANY	7
Relinquished by	Date/Time			Company	<u>-</u>	Received	by.)			Date/fime	Time		Сотрапу	
	Date/Time			Company		Received by	by				Date/Time	Time		Company	
Custody Seals Intact Custody Seal No					Ü	Poler Te	Cooler Temperature(s) °C and Other Remarks (751A) SEL-FROZEN ©.	s) °C and	Other Re	marks O3.5	Cand Other Remarks	3.30	519/	51-20	
					1	1	. 1	1					(Ver 01/16/2019	5/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu Job Number: 380-59313-2

Login Number: 59313 List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Elyas, Matthew

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	
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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	