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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-54624-2

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

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

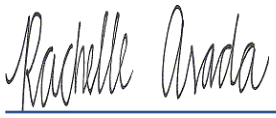
This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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
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Table of Contents

Definitions/Glossary

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

Job ID: 380-54624-2

Qualifiers

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 380-54624-2

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative
380-54624-2

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 7/13/2023 11:00 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 5.0°C and 5.3°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.

Detection Summary

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

Job ID: 380-54624-2

Client Sample ID: HALAWA WELLS UNITS 1 & 2 — Lab Sample ID: 380-54624-1

No Detections.

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 — Lab Sample ID: 380-54624-3

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-54624-2

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Date Collected: 07/11/23 09:30
Date Received: 07/13/23 11:00

Lab Sample ID: 380-54624-1

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Acenaphthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Acenaphthylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Biphenyl	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Chrysene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Dibenzothiophene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		07/17/23 00:00	07/30/23 23:15	1
Fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Fluorene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Naphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Perylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Phenanthrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1
Pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*55*		*27 - 133*	*07/17/23 00:00*	*07/30/23 23:15*	*1*
(d10-Phenanthrene)	*93*		*43 - 129*	*07/17/23 00:00*	*07/30/23 23:15*	*1*
(d12-Chrysene)	*101*		*52 - 144*	*07/17/23 00:00*	*07/30/23 23:15*	*1*
(d12-Perylene)	*78*		*36 - 161*	*07/17/23 00:00*	*07/30/23 23:15*	*1*
(d8-Naphthalene)	*55*		*25 - 125*	*07/17/23 00:00*	*07/30/23 23:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			07/17/23 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*80*		*60 - 140*		*07/17/23 19:54*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.03		mg/L			07/22/23 00:31	1
JP5	ND	U	0.059		mg/L			07/22/23 00:31	1
JP8	ND	U	0.059		mg/L			07/22/23 00:31	1
MOTOR OIL	ND	U	0.059		mg/L			07/22/23 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*71*		*60 - 130*		*07/22/23 00:31*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-54624-1

Date Collected: 07/11/23 09:30

Matrix: Drinking Water

Date Received: 07/13/23 11:00

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
HEXACOSANE	*94*		*60 - 130*		*07/22/23 00:31*	*1*

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-54624-3

Date Collected: 07/11/23 09:30

Matrix: Water

Date Received: 07/13/23 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			07/17/23 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*79*		*60 - 140*		*07/17/23 20:31*	*1*

Surrogate Summary

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

Job ID: 380-54624-2

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

Matrix: BlankMatrix **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)
108350-B1	Method Blank	65	102	107	66	85
108350-BS1	Lab Control Sample	58	80	96	60	79
108350-BS2	Lab Control Sample Dup	68	92	107	69	88

Surrogate Legend

(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)
380-54624-1	HALAWA WELLS UNITS 1 & 2	55	93	101	55	78

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)
380-54624-1	HALAWA WELLS UNITS 1 & 2	80

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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)
380-54624-3	TB: HALAWA WELLS UNITS 1 &	79

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

Client: City & County of Honolulu
Job ID: 380-54624-2
Project/Site: RED-HILL

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	
23VG39G08B	Method Blank	

Surrogate Legend
BFB = BROMOFLUOROBENZENE

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)
23VG39G08C	LCD	107
23VG39G08L	Lab Control Sample	109

Surrogate Legend
BFB = BROMOFLUOROBENZENE

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

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
380-54624-1	HALAWA WELLS UNITS 1 & 2	71	94

Surrogate Legend
BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Matrix: WATER **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID		
23DSG024WB	Method Blank		

Surrogate Legend
BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Matrix: WATER **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
23DSG024WC	LCD	73	98
23DSG024WL	Lab Control Sample	68	91
23J5G024WC	LCD	81	90
23J5G024WL	Lab Control Sample	75	88
23J8G024WC	LCD	96	90
23J8G024WL	Lab Control Sample	87	92

Surrogate Summary

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

Job ID: 380-54624-2

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Lab Sample ID: 108350-B1
Matrix: BlankMatrix
Analysis Batch: O-41148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-41148_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Acenaphthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Acenaphthylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Biphenyl	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Chrysene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Dibenzothiophene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		07/17/23 00:00	07/30/23 12:24	1
Fluoranthene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Fluorene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Naphthalene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Perylene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Phenanthrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1
Pyrene	ND		0.005	0.001	µg/L		07/17/23 00:00	07/30/23 12:24	1

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*65*		*27 - 133*	*07/17/23 00:00*	*07/30/23 12:24*	*1*
(d10-Phenanthrene)	*102*		*43 - 129*	*07/17/23 00:00*	*07/30/23 12:24*	*1*
(d12-Chrysene)	*107*		*52 - 144*	*07/17/23 00:00*	*07/30/23 12:24*	*1*
(d12-Perylene)	*85*		*36 - 161*	*07/17/23 00:00*	*07/30/23 12:24*	*1*
(d8-Naphthalene)	*66*		*25 - 125*	*07/17/23 00:00*	*07/30/23 12:24*	*1*

Lab Sample ID: 108350-BS1
Matrix: BlankMatrix
Analysis Batch: O-41148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-41148_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.352		µg/L		70	31 - 128
1-Methylphenanthrene	0.5	0.505		µg/L		101	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.441		µg/L		88	55 - 122
2,6-Dimethylnaphthalene	0.5	0.394		µg/L		79	48 - 120
2-Methylnaphthalene	0.5	0.396		µg/L		79	47 - 130
Acenaphthene	0.5	0.38		µg/L		76	53 - 131
Acenaphthylene	0.5	0.431		µg/L		86	43 - 140
Anthracene	0.5	0.429		µg/L		86	58 - 135

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

Lab Sample ID: 108350-BS1
Matrix: BlankMatrix
Analysis Batch: O-41148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-41148_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benz[a]anthracene	0.5	0.502		µg/L		100	55 - 145
Benzo[a]pyrene	0.5	0.443		µg/L		89	51 - 143
Benzo[b]fluoranthene	0.5	0.484		µg/L		97	46 - 165
Benzo[e]pyrene	0.5	0.464		µg/L		93	42 - 152
Benzo[g,h,i]perylene	0.5	0.466		µg/L		93	63 - 133
Benzo[k]fluoranthene	0.5	0.483		µg/L		97	56 - 145
Biphenyl	0.5	0.456		µg/L		91	56 - 119
Chrysene	0.5	0.476		µg/L		95	56 - 141
Dibenz[a,h]anthracene	0.5	0.454		µg/L		91	55 - 150
Dibenzo[a,l]pyrene	0.5	0.386		µg/L		77	50 - 150
Dibenzothiophene	0.5	0.487		µg/L		97	46 - 126
Disalicylidenepropanediamine	50	28.1		µg/L		54	50 - 150
Fluoranthene	0.5	0.58		µg/L		116	60 - 146
Fluorene	0.5	0.421		µg/L		84	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.446		µg/L		89	50 - 151
Naphthalene	0.5	0.356		µg/L		71	41 - 126
Perylene	0.5	0.407		µg/L		81	48 - 141
Phenanthrene	0.5	0.442		µg/L		88	67 - 127
Pyrene	0.5	0.53		µg/L		106	54 - 156

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
(d10-Acenaphthene)	*58*		*27 - 133*
(d10-Phenanthrene)	*80*		*43 - 129*
(d12-Chrysene)	*96*		*52 - 144*
(d12-Perylene)	*79*		*36 - 161*
(d8-Naphthalene)	*60*		*25 - 125*

Lab Sample ID: 108350-BS2
Matrix: BlankMatrix
Analysis Batch: O-41148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-41148_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.388		µg/L		78	31 - 128	11	30
1-Methylphenanthrene	0.5	0.546		µg/L		109	66 - 127	8	30
2,3,5-Trimethylnaphthalene	0.5	0.467		µg/L		93	55 - 122	6	30
2,6-Dimethylnaphthalene	0.5	0.424		µg/L		85	48 - 120	7	30
2-Methylnaphthalene	0.5	0.414		µg/L		83	47 - 130	5	30
Acenaphthene	0.5	0.403		µg/L		81	53 - 131	6	30
Acenaphthylene	0.5	0.469		µg/L		94	43 - 140	9	30
Anthracene	0.5	0.469		µg/L		94	58 - 135	9	30
Benz[a]anthracene	0.5	0.541		µg/L		108	55 - 145	8	30
Benzo[a]pyrene	0.5	0.492		µg/L		98	51 - 143	10	30
Benzo[b]fluoranthene	0.5	0.489		µg/L		98	46 - 165	1	30
Benzo[e]pyrene	0.5	0.491		µg/L		98	42 - 152	5	30
Benzo[g,h,i]perylene	0.5	0.493		µg/L		99	63 - 133	6	30
Benzo[k]fluoranthene	0.5	0.496		µg/L		99	56 - 145	2	30
Biphenyl	0.5	0.505		µg/L		101	56 - 119	10	30
Chrysene	0.5	0.507		µg/L		101	56 - 141	6	30

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

Lab Sample ID: 108350-BS2
Matrix: BlankMatrix
Analysis Batch: O-41148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-41148_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]anthracene			0.5	0.481		µg/L		96	55 - 150	5	30
Dibenzo[a,l]pyrene			0.5	0.401		µg/L		80	50 - 150	4	30
Dibenzothiophene			0.5	0.5		µg/L		100	46 - 126	3	30
Disalicylidenepropanediamine			50	29		µg/L		56	50 - 150	4	30
Fluoranthene			0.5	0.629		µg/L		126	60 - 146	8	30
Fluorene			0.5	0.46		µg/L		92	58 - 131	9	30
Indeno[1,2,3-cd]pyrene			0.5	0.467		µg/L		93	50 - 151	4	30
Naphthalene			0.5	0.398		µg/L		80	41 - 126	12	30
Perylene			0.5	0.447		µg/L		89	48 - 141	9	30
Phenanthrene			0.5	0.464		µg/L		93	67 - 127	6	30
Pyrene			0.5	0.565		µg/L		113	54 - 156	6	30

Surrogate	*LCS DUP %Recovery*	*LCS DUP Qualifier*	*Limits*
(d10-Acenaphthene)	*68*		*27 - 133*
(d10-Phenanthrene)	*92*		*43 - 129*
(d12-Chrysene)	*107*		*52 - 144*
(d12-Perylene)	*88*		*36 - 161*
(d8-Naphthalene)	*69*		*25 - 125*

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

Lab Sample ID: 23VG39G08B
Matrix: WATER
Analysis Batch: 23VG39G08

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			07/17/23 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE					*07/17/23 12:33*	*1*

Lab Sample ID: 23VG39G08L
Matrix: WATER
Analysis Batch: 23VG39G08

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE			0.5	0.472		mg/L		94	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*109*		*70 - 130*

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

Lab Sample ID: 23DSG024WB
Matrix: WATER
Analysis Batch: 23DSG024W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			07/21/23 20:09	1
JP5	ND	U	0.05		mg/L			07/21/23 20:09	1
JP8	ND	U	0.05		mg/L			07/21/23 20:09	1
MOTOR OIL	ND	U	0.05		mg/L			07/21/23 20:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE					*07/21/23 20:09*	*1*
HEXACOSANE					*07/21/23 20:09*	*1*

Lab Sample ID: 23DSG024WL
Matrix: WATER
Analysis Batch: 23DSG024W

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
DIESEL			2.5	2.24		mg/L		90	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*68*		*60 - 130*
HEXACOSANE	*91*		*60 - 130*

Lab Sample ID: 23J5G024WL
Matrix: WATER
Analysis Batch: 23DSG024W

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP5			2.5	1.79		mg/L		72	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*75*		*60 - 130*
HEXACOSANE	*88*		*60 - 130*

Lab Sample ID: 23J8G024WL
Matrix: WATER
Analysis Batch: 23DSG024W

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP8			2.5	1.97		mg/L		79	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*87*		*60 - 130*
HEXACOSANE	*92*		*60 - 130*

Subcontract

Analysis Batch: O-41148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-54624-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-41148_P
108350-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41148_P
108350-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41148_P
108350-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41148_P

Analysis Batch: 23DSG024W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-54624-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
23DSG024WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23DSG024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J5G024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J8G024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	

Analysis Batch: 23VG39G08

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-54624-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-54624-3	TB: HALAWA WELLS UNITS 1 & 2	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
23VG39G08B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23VG39G08L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-41148_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-54624-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Drinking Water	EPA_625	
108350-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
108350-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
108350-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-54624-2

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-54624-1
Matrix: Drinking Water
Date Collected: 07/11/23 09:30
Date Received: 07/13/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA_625		1	O-41148_P			07/17/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-41148	YC		07/30/23 23:15
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39G08	SCerva		07/17/23 19:54
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSG024W	SDees		07/22/23 00:31

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-54624-3
Matrix: Water
Date Collected: 07/11/23 09:30
Date Received: 07/13/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39G08	SCerva		07/17/23 20:31

Laboratory References:

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

Method Summary

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

Job ID: 380-54624-2

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

Sample Summary

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

Job ID: 380-54624-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-54624-1	HALAWA WELLS UNITS 1 & 2	Drinking Water	07/11/23 09:30	07/13/23 11:00
380-54624-3	TB: HALAWA WELLS UNITS 1 & 2	Water	07/11/23 09:30	07/13/23 11:00

EMAX LABORATORIES, INC.
3051 Fujita Street
Torrance, CA 90505
Tel: (310)-618-8889

Date: 08-11-2023
EMAX Batch No.: 23G129

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-54624

Enclosed is the Laboratory report for samples received on 07/17/23.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-54624-1	G129-01	07/11/23	WATER	TPH GASOLINE
				TPH
380-54624-3	G129-02	07/11/23	WATER	TPH GASOLINE

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

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

236129

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-63354.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: EMAX Laboratories Inc		Accreditations Required (See note): State - Hawaii		Job #: 380-54624-1
Address: 3051 Fujita Street, ,	Due Date Requested: 7/27/2023			
City: Torrance	TAT Requested (days):			
State, Zip: CA, 90505				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)	SUB (8015 LL DRO/MRO/JP5/JP8)/ 8015 LL DRO/MRO/JP5/JP8	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
1	HALAWA WELLS UNITS 1 & 2 (380-54624-1)	7/11/23	09:30 Hawaiian		Water			X	X	5	See Attached Instructions
2	TB: HALAWA WELLS UNITS 1 & 2 (380-54624-3)	7/11/23	09:30 Hawaiian		Water			X		2	See Attached Instructions

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. 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 accreditation 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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	7/17/23 1207	CEA	[signature]	7/17/23 1207	EMAX
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6/2.4 CF=-0.2

REPORT ID: 23G129

SAMPLE RECEIPT FORM 1

EMAX LABORATORIES, INC.

Type of Delivery	Airbill / Tracking Number	ECN 23G129
☐ Fedex ☐ UPS ☑ GSO ☐ Others		Recipient Jhowin Zamora
☐ EMAX Courier ☐ Client Delivery		Date 07/17/23 Time 12:07

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☐ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☐ Rad screening required		

Note:

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging correction factor: -0.2	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 2.6/2.4 °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C
Thermometer:	(A) - S/N 221852768	B - S/N 221925379	C - S/N _____	D - S/N _____	

Comments: ☐ Temperature is out of range. PM was informed IMMEDIATELY.

Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
2	6,7	D7	second date reads: 7/6/23	R1
1	4,5	D2	JP5/JP8 not indicated on label	

JSR 07/17

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

MB 7/18/23

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? ☐ YES ☐ NO

LEGEND:

Code	Description- Sample Management
D1	Analysis is not indicated in _____
D2	Analysis mismatch COC vs label
D3	Sample ID mismatch COC vs label
D4	Sample ID is not indicated in _____
D5	Container -[improper] [leaking] [broken]
D6	Date/Time is not indicated in _____
D7	Date/Time mismatch COC vs label
D8	Sample listed in COC is not received
D9	Sample received is not listed in COC
D10	No initial/date on corrections in COC/label
D11	Container count mismatch COC vs received
D12	Container size mismatch COC vs received

Code	Description-Sample Management
D13	Out of Holding Time
D14	Bubble is >6mm
D15	No trip blank in cooler
D16	Preservation not indicated in _____
D17	Preservation mismatch COC vs label
D18	Insufficient chemical preservative
D19	Insufficient Sample
D20	No filtration info for dissolved analysis
D21	No sample for moisture determination
D22	_____
D23	_____
D24	_____

☐ Continue to next page.

Code	Description-Sample Management
R1	Proceed as indicated in ☒ COC ☐ Label
R2	Refer to attached instruction
R3	Cancel the analysis
R4	Use vial with smallest bubble first
R5	Log-in with latest sampling date and time+1 min
R6	Adjust pH as necessary
R7	Filter and preserved as necessary
R8	_____
R9	_____
R10	_____
R11	_____
R12	_____

REVIEWS:

Sample Labeling: Nandeen Nacang / Jocelyne Solis-Ramos

Date: 07/17/23 / 07/17/23

SRF: Jocelyne Solis-Ramos

Date: 07/17/23

PM: MB

Date: 7/18/23

REPORTING CONVENTIONS

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.
B	B	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.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-54624

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

SDG#: 23G129

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-54624

SDG : 23G129

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

A total of two(2) water samples were received on 07/17/23 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. VG39G08B - 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. VG39G08L/VG39G08C 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 G106-01M/G106-01S. 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.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
Project : 380-54624

SDG NO. : 23G129
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VG39G08B	1	NA	07/17/2312:33	07/17/2312:33	EG17005A	EG17004A	23VG39G08	Method Blank
LCS1W	VG39G08L	1	NA	07/17/2313:09	07/17/2313:09	EG17006A	EG17004A	23VG39G08	Lab Control Sample (LCS)
LCD1W	VG39G08C	1	NA	07/17/2313:46	07/17/2313:46	EG17007A	EG17004A	23VG39G08	LCS Duplicate
380-54624-1	G129-01	1	NA	07/17/2319:54	07/17/2319:54	EG17017A	EG17014A	23VG39G08	Field Sample
380-54624-3	G129-02	1	NA	07/17/2320:31	07/17/2320:31	EG17018A	EG17014A	23VG39G08	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/11/23 09:30
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/17/23 19:54
Sample ID	: 380-54624-1	Date Analyzed:	07/17/23 19:54
Lab Samp ID:	G129-01	Dilution Factor:	1
Lab File ID:	EG17017A	Matrix:	WATER
Ext Btch ID:	23VG39G08	% Moisture:	NA
Calib. Ref.:	EG17014A	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	0.0319	0.0400	80	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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/11/23 09:30
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/17/23 20:31
Sample ID	: 380-54624-3	Date Analyzed:	07/17/23 20:31
Lab Samp ID:	G129-02	Dilution Factor:	1
Lab File ID:	EG17018A	Matrix:	WATER
Ext Btch ID:	23VG39G08	% Moisture:	NA
Calib. Ref.:	EG17014A	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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/17/23 12:33
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/17/23 12:33
Sample ID	: MBLK1W	Date Analyzed:	07/17/23 12:33
Lab Samp ID:	VG39G08B	Dilution Factor:	1
Lab File ID:	EG17005A	Matrix:	WATER
Ext Btch ID:	23VG39G08	% Moisture:	NA
Calib. Ref.:	EG17004A	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	0.0323	0.0400	81	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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54624
BATCH NO. : 23G129
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VG39G08B	VG39G08L	VG39G08C
LAB FILE ID	: EG17005A	EG17006A	EG17007A
DATE PREPARED	: 07/17/23 12:33	07/17/23 13:09	07/17/23 13:46
DATE ANALYZED	: 07/17/23 12:33	07/17/23 13:09	07/17/23 13:46
PREP BATCH	: 23VG39G08	23VG39G08	23VG39G08
CALIBRATION REF	: EG17004A	EG17004A	EG17004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.472	94	0.500	0.499	100	6	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0437	109	0.0400	0.0428	107	70-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54548
BATCH NO. : 23G106
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-54548-1	380-54548-1MS	380-54548-1MSD
LAB SAMPLE ID	: G106-01	G106-01M	G106-01S
LAB FILE ID	: EG17008A	EG17009A	EG17010A
DATE PREPARED	: 07/17/23 14:22	07/17/23 14:59	07/17/23 15:36
DATE ANALYZED	: 07/17/23 14:22	07/17/23 14:59	07/17/23 15:36
PREP BATCH	: 23VG39G08	23VG39G08	23VG39G08
CALIBRATION REF	: EG17004A	EG17004A	EG17004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.469	94	0.500	0.439	88	7	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0433	108	0.0400	0.0408	102	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-54624

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23G129

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-54624

SDG : 23G129

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/17/23 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was 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. DSG024WB - 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. DSG024WL/DSG024WC 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. Diesel was within MS QC limits in 23G106-01M/23G106-01S. Refer to Matrix QC summary form for details.

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-54624

SDG : 23G129

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/17/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was 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. DSG024WB - 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. J5G024WL/J5G024WC 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. JP5 was within MS QC limits in 23G106-01M/23G106-01S. Refer to Matrix QC summary form for details.

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-54624

SDG : 23G129

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/17/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was 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. DSG024WB - 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. J8G024WL/J8G024WC 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
The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-54624

SDG NO. : 23G129
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSG024WB	1	NA	07/21/2320:09	07/20/2312:30	LG21009A	LG21003A	23DSG024W	Method Blank
LCS1W	DSG024WL	1	NA	07/21/2320:27	07/20/2312:30	LG21010A	LG21003A	23DSG024W	Lab Control Sample (LCS)
LCD1W	DSG024WC	1	NA	07/21/2320:46	07/20/2312:30	LG21011A	LG21003A	23DSG024W	LCS Duplicate
380-54624-1	G129-01	1	NA	07/22/2300:31	07/20/2312:30	LG21023A	LG21003A	23DSG024W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-54624

SDG NO. : 23G129
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSG024WB	1	NA	07/21/2320:09	07/20/2312:30	LG21009A	LG21004A	23DSG024W	Method Blank
LCS1W	J5G024WL	1	NA	07/21/2321:05	07/20/2312:30	LG21012A	LG21004A	23DSG024W	Lab Control Sample (LCS)
LCD1W	J5G024WC	1	NA	07/21/2321:24	07/20/2312:30	LG21013A	LG21004A	23DSG024W	LCS Duplicate
380-54624-1	G129-01	1	NA	07/22/2300:31	07/20/2312:30	LG21023A	LG21004A	23DSG024W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-54624

SDG NO. : 23G129
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSG024WB	1	NA	07/21/2320:09	07/20/2312:30	LG21009A	LG21005A	23DSG024W	Method Blank
LCS1W	J8G024WL	1	NA	07/21/2321:42	07/20/2312:30	LG21014A	LG21005A	23DSG024W	Lab Control Sample (LCS)
LCD1W	J8G024WC	1	NA	07/21/2322:01	07/20/2312:30	LG21015A	LG21005A	23DSG024W	LCS Duplicate
380-54624-1	G129-01	1	NA	07/22/2300:31	07/20/2312:30	LG21023A	LG21005A	23DSG024W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/11/23 09:30
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: 380-54624-1	Date Analyzed:	07/22/23 00:31
Lab Samp ID:	23G129-01	Dilution Factor:	1
Lab File ID:	LG21023A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21003A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.030	0.015
Motor Oil	ND	0.059	0.030

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.424	0.595	71	60-130
Hexacosane	0.139	0.149	94	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	: 840ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/11/23 09:30
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: 380-54624-1	Date Analyzed:	07/22/23 00:31
Lab Samp ID:	23G129-01	Dilution Factor:	1
Lab File ID:	LG21023A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21004A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.059	0.030

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.424	0.595	71	60-130
Hexacosane	0.139	0.149	94	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 : 840ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/11/23 09:30
Project	: 380-54624	Date Received:	07/17/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: 380-54624-1	Date Analyzed:	07/22/23 00:31
Lab Samp ID:	23G129-01	Dilution Factor:	1
Lab File ID:	LG21023A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.059	0.030

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.424	0.595	71	60-130
Hexacosane	0.139	0.149	94	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 : 840ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/20/23 12:30
Project	: 380-54624	Date Received:	07/20/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: MBLK1W	Date Analyzed:	07/21/23 20:09
Lab Samp ID:	DSG024WB	Dilution Factor:	1
Lab File ID:	LG21009A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21003A	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	0.380	0.500	76	60-130
Hexacosane	0.117	0.125	93	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	: 1000ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54624
BATCH NO. : 23G129
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSG024WB	DSG024WL	DSG024WC
LAB FILE ID	: LG21009A	LG21010A	LG21011A
DATE PREPARED	: 07/20/23 12:30	07/20/23 12:30	07/20/23 12:30
DATE ANALYZED	: 07/21/23 20:09	07/21/23 20:27	07/21/23 20:46
PREP BATCH	: 23DSG024W	23DSG024W	23DSG024W
CALIBRATION REF	: LG21003A	LG21003A	LG21003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.24	90	2.50	2.13	85	5	50-130	30

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	0.365	73	60-130
Hexacosane	0.125	0.114	91	0.125	0.122	98	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54548
BATCH NO. : 23G106
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-54548-1	380-54548-1MS	380-54548-1MSD
LAB SAMPLE ID	: 23G106-01	23G106-01M	23G106-01S
LAB FILE ID	: LG21016A	LG21017A	LG21018A
DATE PREPARED	: 07/20/23 12:30	07/20/23 12:30	07/20/23 12:30
DATE ANALYZED	: 07/21/23 22:20	07/21/23 22:38	07/21/23 22:57
PREP BATCH	: 23DSG024W	23DSG024W	23DSG024W
CALIBRATION REF	: LG21003A	LG21003A	LG21003A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.70	2.49	92	2.65	2.42	91	3	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.540	0.372	69	0.530	0.407	77	60-130
Hexacosane	0.135	0.136	101	0.132	0.122	92	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/20/23 12:30
Project	: 380-54624	Date Received:	07/20/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: MBLK1W	Date Analyzed:	07/21/23 20:09
Lab Samp ID:	DSG024WB	Dilution Factor:	1
Lab File ID:	LG21009A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21004A	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	0.380	0.500	76	60-130
Hexacosane	0.117	0.125	93	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 : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54624
BATCH NO. : 23G129
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSG024WB	J5G024WL	J5G024WC
LAB FILE ID	: LG21009A	LG21012A	LG21013A
DATE PREPARED	: 07/20/23 12:30	07/20/23 12:30	07/20/23 12:30
DATE ANALYZED	: 07/21/23 20:09	07/21/23 21:05	07/21/23 21:24
PREP BATCH	: 23DSG024W	23DSG024W	23DSG024W
CALIBRATION REF	: LG21004A	LG21004A	LG21004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.50	1.79	72	2.50	1.83	73	2	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.376	75	0.500	0.407	81	60-130
Hexacosane	0.125	0.110	88	0.125	0.113	90	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54548
BATCH NO. : 23G106
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-54548-1	380-54548-1MS	380-54548-1MSD
LAB SAMPLE ID	: 23G106-01	23G106-01M	23G106-01S
LAB FILE ID	: LG21016A	LG21019A	LG21020A
DATE PREPARED	: 07/20/23 12:30	07/20/23 12:30	07/20/23 12:30
DATE ANALYZED	: 07/21/23 22:20	07/21/23 23:16	07/21/23 23:34
PREP BATCH	: 23DSG024W	23DSG024W	23DSG024W
CALIBRATION REF	: LG21004A	LG21004A	LG21004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.70	1.98	73	2.72	1.75	64	12	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.540	0.383	71	0.545	0.346	63	60-130
Hexacosane	0.135	0.115	85	0.136	0.118	87	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	07/20/23 12:30
Project	: 380-54624	Date Received:	07/20/23
Batch No.	: 23G129	Date Extracted:	07/20/23 12:30
Sample ID	: MBLK1W	Date Analyzed:	07/21/23 20:09
Lab Samp ID:	DSG024WB	Dilution Factor:	1
Lab File ID:	LG21009A	Matrix:	WATER
Ext Btch ID:	23DSG024W	% Moisture:	NA
Calib. Ref.:	LG21005A	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	0.380	0.500	76	60-130
Hexacosane	0.117	0.125	93	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 : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-54624
BATCH NO. : 23G129
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSG024WB	J8G024WL	J8G024WC
LAB FILE ID	: LG21009A	LG21014A	LG21015A
DATE PREPARED	: 07/20/23 12:30	07/20/23 12:30	07/20/23 12:30
DATE ANALYZED	: 07/21/23 20:09	07/21/23 21:42	07/21/23 22:01
PREP BATCH	: 23DSG024W	23DSG024W	23DSG024W
CALIBRATION REF	: LG21005A	LG21005A	LG21005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.50	1.97	79	2.50	2.38	95	19	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.433	87	0.500	0.479	96	60-130
Hexacosane	0.125	0.115	92	0.125	0.112	90	60-130

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

August 01, 2023

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

Project Name: RED-HILL Project # 38001111 Job # 380-54624-1
Physis Project ID: 1407003-418

Dear Rachelle,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 7/17/2023. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was 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

PHYSIS Project ID: 1407003-418

RED-HILL Project # 38001111 Job # 380-54624-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
108351	HALAWA WELLS UNITS 1&2	380-54624-1	7/11/2023	9:30	Samplewater	Not Specified

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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

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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.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

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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.

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PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
B	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
H	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.

ANALYTICAL REPORT

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 108351-R1	**HALAWA WELLS UNITS 1&2 380-54**	**Matrix: Samplewater**					**Sampled:**	**11-Jul-23 9:30**		**Received:**	**17-Jul-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	55	1			Total		O-41148	17-Jul-23	30-Jul-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	93	1			Total		O-41148	17-Jul-23	30-Jul-23
(d12-Chrysene)	EPA 625.1	% Recovery	101	1			Total		O-41148	17-Jul-23	30-Jul-23
(d12-Perylene)	EPA 625.1	% Recovery	78	1			Total		O-41148	17-Jul-23	30-Jul-23
(d8-Naphthalene)	EPA 625.1	% Recovery	55	1			Total		O-41148	17-Jul-23	30-Jul-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23

PHYSIS Project ID: 1407003-418
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-54624-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-41148	17-Jul-23	30-Jul-23
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41148	17-Jul-23	30-Jul-23

QUALITY CONTROL REPORT

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 108350-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-41148		Prepared: 17-Jul-23				Analyzed: 30-Jul-23	
(d10-Acenaphthene)	Total	65	1			% Recovery	100	65	27 - 133%	PASS			
(d10-Phenanthrene)	Total	102	1			% Recovery	100	102	43 - 129%	PASS			
(d12-Chrysene)	Total	107	1			% Recovery	100	107	52 - 144%	PASS			
(d12-Perylene)	Total	85	1			% Recovery	100	85	36 - 161%	PASS			
(d8-Naphthalene)	Total	66	1			% Recovery	100	66	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,l]pyrene	Total	ND	1	0.001	0.005	µg/L							

PHYSIS Project ID: 1407003-418
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-54624-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L							
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							

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 108350-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-41148		Prepared: 17-Jul-23				Analyzed: 30-Jul-23	
(d10-Acenaphthene)	Total	58	1			% Recovery	100	0	58	27 - 133%		PASS	
(d10-Phenanthrene)	Total	80	1			% Recovery	100	0	80	43 - 129%		PASS	
(d12-Chrysene)	Total	96	1			% Recovery	100	0	96	52 - 144%		PASS	
(d12-Perylene)	Total	79	1			% Recovery	100	0	79	36 - 161%		PASS	
(d8-Naphthalene)	Total	60	1			% Recovery	100	0	60	25 - 125%		PASS	
1-Methylnaphthalene	Total	0.352	1	0.001	0.005	µg/L	0.5	0	70	31 - 128%		PASS	
1-Methylphenanthrene	Total	0.505	1	0.001	0.005	µg/L	0.5	0	101	66 - 127%		PASS	
2,3,5-Trimethylnaphthalene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	55 - 122%		PASS	
2,6-Dimethylnaphthalene	Total	0.394	1	0.001	0.005	µg/L	0.5	0	79	48 - 120%		PASS	
2-Methylnaphthalene	Total	0.396	1	0.001	0.005	µg/L	0.5	0	79	47 - 130%		PASS	
Acenaphthene	Total	0.38	1	0.001	0.005	µg/L	0.5	0	76	53 - 131%		PASS	
Acenaphthylene	Total	0.431	1	0.001	0.005	µg/L	0.5	0	86	43 - 140%		PASS	
Anthracene	Total	0.429	1	0.001	0.005	µg/L	0.5	0	86	58 - 135%		PASS	
Benz[a]anthracene	Total	0.502	1	0.001	0.005	µg/L	0.5	0	100	55 - 145%		PASS	
Benzo[a]pyrene	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	51 - 143%		PASS	
Benzo[b]fluoranthene	Total	0.484	1	0.001	0.005	µg/L	0.5	0	97	46 - 165%		PASS	
Benzo[e]pyrene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	42 - 152%		PASS	
Benzo[g,h,i]perylene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	63 - 133%		PASS	
Benzo[k]fluoranthene	Total	0.483	1	0.001	0.005	µg/L	0.5	0	97	56 - 145%		PASS	
Biphenyl	Total	0.456	1	0.001	0.005	µg/L	0.5	0	91	56 - 119%		PASS	
Chrysene	Total	0.476	1	0.001	0.005	µg/L	0.5	0	95	56 - 141%		PASS	
Dibenz[a,h]anthracene	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	55 - 150%		PASS	
Dibenzo[a,l]pyrene	Total	0.386	1	0.001	0.005	µg/L	0.5	0	77	50 - 150%		PASS	

PHYSIS Project ID: 1407003-418
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-54624-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	0.487	1	0.001	0.005	µg/L	0.5	0	97	46 - 126%	PASS			
Disalicylidenepropanediamin	Total	28.1	1	0.05	0.1	µg/L	50	0	54	50 - 150%	PASS			
Fluoranthene	Total	0.58	1	0.001	0.005	µg/L	0.5	0	116	60 - 146%	PASS			
Fluorene	Total	0.421	1	0.001	0.005	µg/L	0.5	0	84	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	0.446	1	0.001	0.005	µg/L	0.5	0	89	50 - 151%	PASS			
Naphthalene	Total	0.356	1	0.001	0.005	µg/L	0.5	0	71	41 - 126%	PASS			
Perylene	Total	0.407	1	0.001	0.005	µg/L	0.5	0	81	48 - 141%	PASS			
Phenanthrene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	67 - 127%	PASS			
Pyrene	Total	0.53	1	0.001	0.005	µg/L	0.5	0	106	54 - 156%	PASS			

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	
Sample ID: 108350-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-41148		Prepared: 17-Jul-23				Analyzed: 30-Jul-23		
(d10-Acenaphthene)	Total	68	1			% Recovery	100	0	68	27 - 133%	PASS	16	30	PASS
(d10-Phenanthrene)	Total	92	1			% Recovery	100	0	92	43 - 129%	PASS	14	30	PASS
(d12-Chrysene)	Total	107	1			% Recovery	100	0	107	52 - 144%	PASS	11	30	PASS
(d12-Perylene)	Total	88	1			% Recovery	100	0	88	36 - 161%	PASS	11	30	PASS
(d8-Naphthalene)	Total	69	1			% Recovery	100	0	69	25 - 125%	PASS	14	30	PASS
1-Methylnaphthalene	Total	0.388	1	0.001	0.005	µg/L	0.5	0	78	31 - 128%	PASS	11	30	PASS
1-Methylphenanthrene	Total	0.546	1	0.001	0.005	µg/L	0.5	0	109	66 - 127%	PASS	8	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	55 - 122%	PASS	6	30	PASS
2,6-Dimethylnaphthalene	Total	0.424	1	0.001	0.005	µg/L	0.5	0	85	48 - 120%	PASS	7	30	PASS
2-Methylnaphthalene	Total	0.414	1	0.001	0.005	µg/L	0.5	0	83	47 - 130%	PASS	5	30	PASS
Acenaphthene	Total	0.403	1	0.001	0.005	µg/L	0.5	0	81	53 - 131%	PASS	6	30	PASS
Acenaphthylene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	43 - 140%	PASS	9	30	PASS
Anthracene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	58 - 135%	PASS	9	30	PASS
Benz[a]anthracene	Total	0.541	1	0.001	0.005	µg/L	0.5	0	108	55 - 145%	PASS	8	30	PASS
Benzo[a]pyrene	Total	0.492	1	0.001	0.005	µg/L	0.5	0	98	51 - 143%	PASS	10	30	PASS
Benzo[b]fluoranthene	Total	0.489	1	0.001	0.005	µg/L	0.5	0	98	46 - 165%	PASS	1	30	PASS
Benzo[e]pyrene	Total	0.491	1	0.001	0.005	µg/L	0.5	0	98	42 - 152%	PASS	5	30	PASS
Benzo[g,h,i]perylene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	63 - 133%	PASS	6	30	PASS
Benzo[k]fluoranthene	Total	0.496	1	0.001	0.005	µg/L	0.5	0	99	56 - 145%	PASS	2	30	PASS
Biphenyl	Total	0.505	1	0.001	0.005	µg/L	0.5	0	101	56 - 119%	PASS	10	30	PASS
Chrysene	Total	0.507	1	0.001	0.005	µg/L	0.5	0	101	56 - 141%	PASS	6	30	PASS
Dibenz[a,h]anthracene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	55 - 150%	PASS	5	30	PASS
Dibenzo[a,l]pyrene	Total	0.401	1	0.001	0.005	µg/L	0.5	0	80	50 - 150%	PASS	4	30	PASS

PHYSIS Project ID: 1407003-418
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-54624-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	0.5	1	0.001	0.005	µg/L	0.5	0	100	46 - 126%	PASS	3	30	PASS
Disalicylidenepropanediamin	Total	29	1	0.05	0.1	µg/L	50	0	56	50 - 150%	PASS	4	30	PASS
Fluoranthene	Total	0.629	1	0.001	0.005	µg/L	0.5	0	126	60 - 146%	PASS	8	30	PASS
Fluorene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	58 - 131%	PASS	9	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	50 - 151%	PASS	4	30	PASS
Naphthalene	Total	0.398	1	0.001	0.005	µg/L	0.5	0	80	41 - 126%	PASS	12	30	PASS
Perylene	Total	0.447	1	0.001	0.005	µg/L	0.5	0	89	48 - 141%	PASS	9	30	PASS
Phenanthrene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	67 - 127%	PASS	6	30	PASS
Pyrene	Total	0.565	1	0.001	0.005	µg/L	0.5	0	113	54 - 156%	PASS	6	30	PASS

TENTATIVELY IDENTIFIED COMPOUNDS

Sample ID: 108351

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
34.8294	3.9195	1111	Anthracene-D10	1517-22-2	89
10.1744	9.3374	2647	m-Menthane, (1S,3S)-(+)-	13837-67-7	92
10.1188	3.8578	1094	Octane, 3-methyl-6-methylene-	74630-07-2	85
10.3900	3.1718	899	Cyclohexane, nitro-	1122-60-7	87
10.0587	1.2072	342	Sulfurous acid, di(cyclohexylmethyl) ester	1010309-22-7	84

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank B1_41148

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
34.8301	3.4334	1111	Anthracene-D10	1517-22-2	89
10.1718	3.7748	1222	m-Menthane, (1S,3S)-(+)-	13837-67-7	90
10.3871	3.0103	974	Cyclohexane, nitro-	1122-60-7	87
10.1172	1.8635	603	Octane, 3-methyl-6-methylene-	74630-07-2	83
10.0414	1.3015	421	Hydroperoxide, 1-ethylbutyl	24254-56-6	86
10.7248	0.8740	283	Cyclohexane, methyl-	108-87-2	83
10.7248	0.6842	221	2-Pentene, 4,4-dimethyl-, (Z)-	762-63-0	86
31.5777	0.3717	120	Benzoic acid, 2-ethylhexyl ester	5444-75-7	82

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-63357.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Physis Environmental Laboratories		Accreditations Required (See note): State - Hawaii		Job #: 380-54624-1
Address: 1904 Wright Circle, ,	Due Date Requested: 7/27/2023			
City: Anaheim	TAT Requested (days):			
State, Zip: CA, 92806				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HALAWA WELLS UNITS 1 & 2 (380-54624-1)	7/11/23	09:30 Hawaiian		Water			X	2	See Attached Instructions

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. 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 accreditation 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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 7/17/23 1330	Company EEA	Received by:	Date/Time: 7/17/23 1330	Company Physis
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

11/21/2023

PHYSIS
TERRA FAUNA FLORA AQUA AUBAY
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Sample Receipt Summary

PHYSIS ENVIRONMENTAL LABORATORIES, INC. Innovative Solutions for Nature

Project Iteration ID: 1407003-418
Client Name: Eurofins Eaton Analytical
Project Name: RED-HILL Project # 38001111 Job # 380-54624-1
COC Page Number: 2 of 2
Bottle Label Color: NA

Receiving Info

1. Initials Received By: [initials]
2. Date Received: 7/17/23
3. Time Received: 1330
4. Client Name: Eurofins
5. Courier Information: (Please circle)
   - Client
   - UPS
   - Area Fast
   - DRS
   - FedEx
   - GSO/GLS
   - Ontrac
   - PAMS
   - PHYSIS Driver:
     - i. Start Time:_____
     - ii. End Time:_____
     - iii. Total Mileage: _____
     - iv. Number of Pickups:_____
6. Container Information: (Please put the # of containers or circle none)
   - 1 Cooler
   - __ Styrofoam Cooler
   - ____ Boxes
   - None
   - ___ Carboy(s)
   - __Carboy Trash Can(s)
   - ____ Carboy Cap(s)
   - Other _____
7. What type of ice was used: (Please circle any that apply)
   - Wet Ice
   - Blue Ice
   - Dry Ice
   - Water
   - None
8. Randomly Selected Samples Temperature (°C): 3.1 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: [initials]

Sample Integrity Upon Receipt:

1. COC(s) included and completely filled out..... Yes / No
2. All sample containers arrived intact..... Yes / No
3. All samples listed on COC(s) are present..... Yes / No
4. Information on containers consistent with information on COC(s)..... Yes / No
5. Correct containers and volume for all analyses indicated..... Yes / No
6. All samples received within method holding time..... Yes / No
7. Correct preservation used for all analyses indicated..... Yes / No
8. Name of sampler included on COC(s)..... Yes / No

Notes:

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Dr. Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5091 (tel)	PO #: C20525101 exp 05312023			
Email: rfenstemacher@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA	Y	N		
MOANALUA WELLS	5-Jun-2023	0959	G	Water			2		2	2	4				1-7723 6444 3089
AIEA GULCH WELLS PUMP2	5-Jun-2023	1142	G	Water			2		2	2	4				2-7723 6444 3023
AIEA WELLS PUMPS 1&2 (260) P2	5-Jun-2023	1105	G	Water			2		2	2	4				3-7723 6444 2943
HALAWA WELLS UNITS 1&2 P1	5-Jun-2023	1033	G	Water			2		2	2	4				4-7723 6444 3148
TB MOANALUA WELLS	5-Jun-2023	0959		Water							2				
TB AIEA GULCH WELLS PUMP2	5-Jun-2023	1142		Water							2				
TB AIEA WELLS PUMPS 1&2 (260)	5-Jun-2023	1105		Water							2				
TB HALAWA WELLS UNITS 1&2	5-Jun-2023	1033		Water							2				

380-50374 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX 1 4 COOLERS

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
BAILEY	06JUNE2023 1400	HBWS	G PEITNER	06/07/2023 10:00	EEA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: GEL-FROZEN-751A	1 - 1.7°-0.2° = 1.5° 2 - 2.5°-0.2° = 2.3° 3 - 2.8°-0.2° = 2.6° 4 - 1.4°-0.2° = 1.2°

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bryson Nakamoto	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Dr. Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5091 (tel)	PO #: C20525101 exp 05312023			
Email: rfenstemacher@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA	Y	N		
MOANALUA WELLS				Water											
AIEA GULCH WELLS PUMP2				Water											
AIEA WELLS PUMPS 1&2 (260)				Water											
HALAWA WELLS UNITS 1&2	7/11/2023	0930	G	Water			2		2	2	3				Pump1
FB MOANALUA WELLS				Water											
FB AIEA GULCH WELLS PUMP2				Water											
FB AIEA WELLS PUMPS 1&2 (260)				Water											
FB HALAWA WELLS UNITS 1&2	7/11/2023			Water							2				

380-54624 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

7727 2344 8265

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX 7727 2344 8460

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bryson Nakamoto	7/11/2023 1020	HBWS	G. REITNER	07/13/2023 11:00	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		GEL-FROZEN (7514) 5.5°-0.2°=5.3° / 5.2°-0.2°=5.0°

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bryson Nakamoto	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Dr. Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5091 (tel)	PO #: C20525101 exp 05312023			
Email: rfenstemacher@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA	Y	N		
MOANALUA WELLS				Water											
AIEA GULCH WELLS PUMP2				Water											
AIEA WELLS PUMPS 1&2 (260)				Water											
HALAWA WELLS UNITS 1&2	7/11/2023	0930	G	Water								3	3		Pump 1
FB MOANALUA WELLS				Water											
FB AIEA GULCH WELLS PUMP2				Water											
FB AIEA WELLS PUMPS 1&2 (260)				Water											
FB HALAWA WELLS UNITS 1&2	7/11/2023			Water								1	1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 7727 2344 8265

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX 7727 2344 8460

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bryson Nakamoto	7/11/2023 1020	HBWS	G. REITNER	07/13/2023 11:00	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		GEL-FROZEN (753A) 5.5°-0.2°=5.3° / 5.2°-0.2°=5.0°

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-54624-2

Login Number: 54624
List Number: 1
Creator: Do, Michelle

List Source: Eurofins Eaton Analytical Pomona

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	