

ANALYTICAL REPORT

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Laboratory Job ID: 380-12377-1
Client Project/Site: RED-HILL

For:
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Attn: Mr. Erwin Kawata



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Results relate only to the items tested and the sample(s) as received by the laboratory.

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)



Kathleen Robb
Client Program Manager
10/21/2022 1:14:15 PM

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Definitions/Glossary

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

Job ID: 380-12377-1

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

Case Narrative

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

Job ID: 380-12377-1

Job ID: 380-12377-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative
380-12377-1

Comments

Quarterly Supplemental 8015, 625 testing

Receipt

The samples were received on 7/27/2022 10:15 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 3.8° C and 5.0° C.

Subcontract non-Sister

See attached subcontract report.

Subcontract Work

Methods 8015 Diesel LL (EAL) and Motor Oil, 8015 Ethanol, 8015 Gas (Purgeable) LL (EAL), 8015 Jet Fuel 5 (JP5), 8015 Jet Fuel 8 (JP8): These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Methods 625 Acid LL (EAL) Physis, 625 Base Neutral LL (EAL) Physis, 625 PAH Physis LL (EAL) + TICs: These methods were subcontracted to Physis Environmental Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.



Detection Summary

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

Job ID: 380-12377-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-12377-1

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)

Lab Sample ID: 380-12377-2

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-12377-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-12377-1

Date Collected: 07/25/22 09:37

Matrix: Drinking Water

Date Received: 07/27/22 10:15

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		07/28/22 00:00	09/01/22 04:42	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,4,5-Trichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,4,6-Trichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,4-Dichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,4-Dinitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,6-Dichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,6-Di-tert-butyl-4-methylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2,6-Di-tert-butylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Chloronaphthalene	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Chlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Methyl-4,6-dinitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
2-Nitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
3+4-Methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
3-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Bromophenylphenyl ether	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Chloro-3-methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Chloroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Chlorophenylphenyl ether	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
4-Nitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
6-tert-butyl-2,4-dimethylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Acenaphthene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Acenaphthylene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Aniline	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzidine	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzoic Acid	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
Benzyl Alcohol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
Biphenyl	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Bis(2-Chloroethoxy) methane	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Bis(2-Chloroethyl) ether	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Bis(2-Chloroisopropyl) ether	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Chrysene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Dibenzofuran	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1

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Client Sample Results

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

Job ID: 380-12377-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-12377-1

Date Collected: 07/25/22 09:37

Matrix: Drinking Water

Date Received: 07/27/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzothiophene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Fluorene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Hexachloroethane	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Naphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Nitrobenzene	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
N-Nitrosodi-n-propylamine	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
N-Nitrosodiphenylamine	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Pentachlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Perylene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Phenanthrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1
Phenol	ND		0.2	0.1	µg/L		07/28/22 00:00	09/01/22 04:42	1
p-tert-Butylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	09/01/22 04:42	1
Pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	09/01/22 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(2,4,6-Tribromophenol)	59		31 - 143	07/28/22 00:00	09/01/22 04:42	1
(d10-Acenaphthene)	55		45 - 118	07/28/22 00:00	09/01/22 04:42	1
(d10-Phenanthrene)	59		56 - 123	07/28/22 00:00	09/01/22 04:42	1
(d12-Chrysene)	71		36 - 142	07/28/22 00:00	09/01/22 04:42	1
(d12-Perylene)	66		36 - 161	07/28/22 00:00	09/01/22 04:42	1
(d5-Phenol)	43		0 - 85	07/28/22 00:00	09/01/22 04:42	1
(d8-Naphthalene)	49		20 - 112	07/28/22 00:00	09/01/22 04:42	1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			08/02/22 16:55	1
JP5	ND	U	0.055		mg/L			08/02/22 16:55	1
JP8	ND	U	0.055		mg/L			08/02/22 16:55	1
MOTOR OIL	ND	U	0.055		mg/L			08/02/22 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	71		60 - 130		08/02/22 16:55	1
HEXACOSANE	93		60 - 130		08/02/22 16:55	1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			07/29/22 14:13	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			07/28/22 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	91		60 - 140		07/28/22 18:26	1

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Client Sample Results

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

Job ID: 380-12377-1

Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)

Lab Sample ID: 380-12377-2

Date Collected: 07/25/22 09:37

Matrix: Water

Date Received: 07/27/22 10:15

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			07/28/22 20:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	91		60 - 140		07/28/22 20:12	1

- 1
- 2
- 3
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- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
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Surrogate Summary

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

Job ID: 380-12377-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		Acenaphtl (45-118)	Phenanth (56-123)	CRY (36-142)	NPT (20-112)	PHL (0-85)	PRY (36-161)	TBP (31-143)
380-12377-1	AIEA GULCH WELLS PUMP 1 (	55	59	71	49	43	66	59

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)
(d10-Phenanthrene) = (d10-Phenanthrene)
CRY = (d12-Chrysene)
NPT = (d8-Naphthalene)
PHL = (d5-Phenol)
PRY = (d12-Perylene)
TBP = (2,4,6-Tribromophenol)

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

Matrix: water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		Acenaphtl (65-113)	Phenanth (80-111)	CRY (60-139)	NPT (44-119)	PHL (20-121)	PRY (36-161)	TBP (44-159)
98812-B1	Method Blank	93	93	98	86	102	90	80
98812-BS1	Lab Control Sample	98	97	105	87	104	99	79
98812-BS2	Lab Control Sample Dup	97	98	100	84	97	98	80

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)
(d10-Phenanthrene) = (d10-Phenanthrene)
CRY = (d12-Chrysene)
NPT = (d8-Naphthalene)
PHL = (d5-Phenol)
PRY = (d12-Perylene)
TBP = (2,4,6-Tribromophenol)

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
380-12377-1	AIEA GULCH WELLS PUMP 1 (	71	93

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
22DSH001WC	LCD	85	94
22DSH001WL	Lab Control Sample	80	90
22G287-01M	Matrix Spike	73	94
22G287-01M	Matrix Spike	69	90

Eurofins Eaton Monrovia

Surrogate Summary

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

Job ID: 380-12377-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
22G287-01S	Matrix Spike Duplicate	70	95
22G287-01S	Matrix Spike Duplicate	77	93
22J5H001WC	LCD	88	91
22J5H001WL	Lab Control Sample	92	92
22J8H001WC	LCD	91	95
22J8H001WL	Lab Control Sample	102	95

Surrogate Legend

BB = BROMOBENZENE
 HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
22DSH001WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE
 HEXACOSANE = HEXACOSANE

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-12377-1	AIEA GULCH WELLS PUMP 1 (	91

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)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-12377-2	TB:AIEA GULCH WELLS P1 (3	91

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)

Lab Sample ID	Client Sample ID	BFB (60-140)
22G287-01M	Matrix Spike	113
22G287-01S	Matrix Spike Duplicate	111

Surrogate Summary

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

Job ID: 380-12377-1

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)

Lab Sample ID	Client Sample ID	BFB
22VGH7G06B	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)

Lab Sample ID	Client Sample ID	BFB (70-130)
22VGH7G06C	LCD	109
22VGH7G06L	Lab Control Sample	112

Surrogate Legend

BFB = BROMOFLUOROBENZENE

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 98812-B1
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,4,5-Trichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,4,6-Trichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,4-Dichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,4-Dinitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,6-Dichlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,6-Di-tert-butyl-4-methylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2,6-Di-tert-butylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Chloronaphthalene	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Chlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Methyl-4,6-dinitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
2-Nitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
3+4-Methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
3-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Bromophenylphenyl ether	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Chloro-3-methylphenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Chloroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Chlorophenylphenyl ether	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Nitroaniline	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
4-Nitrophenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
6-tert-butyl-2,4-dimethylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Acenaphthene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Acenaphthylene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Aniline	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzidine	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzoic Acid	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
Benzyl Alcohol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
Biphenyl	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Bis(2-Chloroethoxy) methane	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Bis(2-Chloroethyl) ether	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Bis(2-Chloroisopropyl) ether	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Chrysene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Dibenzofuran	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 98812-B1
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzothiophene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
DisalicylidenePROPANEDIAMINE	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Fluoranthene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Fluorene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Hexachloroethane	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Naphthalene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Nitrobenzene	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
N-Nitrosodi-n-propylamine	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
N-Nitrosodiphenylamine	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Pentachlorophenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Perylene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Phenanthrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1
Phenol	ND		0.2	0.1	µg/L		07/28/22 00:00	08/31/22 23:31	1
p-tert-Butylphenol	ND		0.1	0.05	µg/L		07/28/22 00:00	08/31/22 23:31	1
Pyrene	ND		0.005	0.001	µg/L		07/28/22 00:00	08/31/22 23:31	1

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
(2,4,6-Tribromophenol)	80		44 - 159	07/28/22 00:00	08/31/22 23:31	1
(d10-Acenaphthene)	93		65 - 113	07/28/22 00:00	08/31/22 23:31	1
(d10-Phenanthrene)	93		80 - 111	07/28/22 00:00	08/31/22 23:31	1
(d12-Chrysene)	98		60 - 139	07/28/22 00:00	08/31/22 23:31	1
(d12-Perylene)	90		36 - 161	07/28/22 00:00	08/31/22 23:31	1
(d5-Phenol)	102		20 - 121	07/28/22 00:00	08/31/22 23:31	1
(d8-Naphthalene)	86		44 - 119	07/28/22 00:00	08/31/22 23:31	1

Lab Sample ID: 98812-BS1
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.439		µg/L		88	49 - 117
1-Methylphenanthrene	0.5	0.512		µg/L		102	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.456		µg/L		91	57 - 120
2,4,5-Trichlorophenol	1	0.871		µg/L		87	57 - 116
2,4,6-Trichlorophenol	1	0.86		µg/L		86	56 - 118
2,4-Dichlorophenol	1	0.84		µg/L		84	51 - 117
2,4-Dinitrophenol	1	0.561		µg/L		56	0 - 152
2,6-Dichlorophenol	1	0.855		µg/L		86	30 - 130
2,6-Dimethylnaphthalene	0.5	0.45		µg/L		90	54 - 117
2,6-Di-tert-butyl-4-methylphenol	1	0.725		µg/L		73	50 - 150
2,6-Di-tert-butylphenol	1	0.773		µg/L		77	50 - 150
2-Chloronaphthalene	1	0.88		µg/L		88	53 - 130
2-Chlorophenol	1	0.77		µg/L		77	41 - 120
2-Methyl-4,6-dinitrophenol	1	0.666		µg/L		67	0 - 141
2-Methylnaphthalene	1.5	1.43		µg/L		95	47 - 130
2-Methylphenol	1	0.82		µg/L		82	40 - 117
2-Nitroaniline	1	0.963		µg/L		96	69 - 114

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 98812-BS1
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitrophenol	1	0.558		µg/L		56	40 - 117
3+4-Methylphenol	1	0.8		µg/L		80	0 - 130
3-Nitroaniline	1	1.16		µg/L		116	23 - 137
4-Bromophenylphenyl ether	1	0.922		µg/L		92	61 - 132
4-Chloro-3-methylphenol	1	0.824		µg/L		82	51 - 128
4-Chloroaniline	1	0.839		µg/L		84	50 - 150
4-Chlorophenylphenyl ether	1	0.93		µg/L		93	63 - 130
4-Nitroaniline	2	2.29		µg/L		114	10 - 159
4-Nitrophenol	1	0.885		µg/L		88	10 - 164
6-tert-butyl-2,4-dimethylphenol	1	0.815		µg/L		81	50 - 150
Acenaphthene	1.5	1.5		µg/L		100	53 - 131
Acenaphthylene	1.5	1.53		µg/L		102	43 - 140
Aniline	0.5	0.531		µg/L		106	50 - 150
Anthracene	1.5	1.4		µg/L		93	58 - 135
Benz[a]anthracene	1.5	1.4		µg/L		93	55 - 145
Benzidine	1	0.0367		µg/L		4	0 - 125
Benzo[a]pyrene	1.5	1.31		µg/L		87	51 - 143
Benzo[b]fluoranthene	1.5	1.42		µg/L		95	46 - 165
Benzo[e]pyrene	0.5	0.486		µg/L		97	42 - 152
Benzo[g,h,i]perylene	1.5	1.51		µg/L		101	63 - 133
Benzo[k]fluoranthene	1.5	1.34		µg/L		89	56 - 145
Benzoic Acid	1	0.541		µg/L		54	2 - 145
Benzyl Alcohol	1	0.784		µg/L		78	43 - 148
Biphenyl	0.5	0.459		µg/L		92	56 - 119
Bis(2-Chloroethoxy) methane	1	0.903		µg/L		90	66 - 122
Bis(2-Chloroethyl) ether	1	0.667		µg/L		67	43 - 127
Bis(2-Chloroisopropyl) ether	1	1.08		µg/L		108	49 - 128
Chrysene	1.5	1.35		µg/L		90	56 - 141
Dibenz[a,h]anthracene	1.5	1.42		µg/L		95	55 - 150
Dibenzo[a,l]pyrene	0.5	0.485		µg/L		97	50 - 150
Dibenzofuran	1	0.899		µg/L		90	50 - 150
Dibenzothiophene	0.5	0.43		µg/L		86	75 - 113
Disalicylidenepropanediamine	50	36.8		µg/L		74	50 - 150
Fluoranthene	1.5	1.37		µg/L		91	60 - 146
Fluorene	1.5	1.59		µg/L		106	58 - 131
Hexachloroethane	1	0.772		µg/L		77	27 - 130
Indeno[1,2,3-cd]pyrene	1.5	1.39		µg/L		93	50 - 151
Naphthalene	1.5	1.33		µg/L		89	41 - 126
Nitrobenzene	1	0.8		µg/L		80	54 - 111
N-Nitrosodi-n-propylamine	1	0.869		µg/L		87	61 - 152
N-Nitrosodiphenylamine	1	1.01		µg/L		101	49 - 142
Pentachlorophenol	1	0.908		µg/L		91	36 - 111
Perylene	0.5	0.477		µg/L		95	48 - 141
Phenanthrene	1.5	1.43		µg/L		95	67 - 127
Phenol	1	0.674		µg/L		67	29 - 114
p-tert-Butylphenol	1	1.03		µg/L		103	50 - 150
Pyrene	1.5	1.37		µg/L		91	54 - 156

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 98812-BS1
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38096_P

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
(2,4,6-Tribromophenol)	79		44 - 159
(d10-Acenaphthene)	98		65 - 113
(d10-Phenanthrene)	97		80 - 111
(d12-Chrysene)	105		60 - 139
(d12-Perylene)	99		36 - 161
(d5-Phenol)	104		20 - 121
(d8-Naphthalene)	87		44 - 119

Lab Sample ID: 98812-BS2
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	Limit	
1-Methylnaphthalene	0.5	0.454		µg/L		91	49 - 117	3	30	
1-Methylphenanthrene	0.5	0.518		µg/L		104	66 - 127	2	30	
2,3,5-Trimethylnaphthalene	0.5	0.47		µg/L		94	57 - 120	3	30	
2,4,5-Trichlorophenol	1	0.883		µg/L		88	57 - 116	1	30	
2,4,6-Trichlorophenol	1	0.915		µg/L		92	56 - 118	7	30	
2,4-Dichlorophenol	1	0.852		µg/L		85	51 - 117	1	30	
2,4-Dinitrophenol	1	0.56		µg/L		56	0 - 152	0	30	
2,6-Dichlorophenol	1	0.834		µg/L		83	30 - 130	4	30	
2,6-Dimethylnaphthalene	0.5	0.471		µg/L		94	54 - 117	4	30	
2,6-Di-tert-butyl-4-methylphenol	1	0.752		µg/L		75	50 - 150	4	30	
2,6-Di-tert-butylphenol	1	0.79		µg/L		79	50 - 150	3	30	
2-Chloronaphthalene	1	0.889		µg/L		89	53 - 130	1	30	
2-Chlorophenol	1	0.729		µg/L		73	41 - 120	5	30	
2-Methyl-4,6-dinitrophenol	1	0.732		µg/L		73	0 - 141	9	30	
2-Methylnaphthalene	1.5	1.45		µg/L		97	47 - 130	2	30	
2-Methylphenol	1	0.808		µg/L		81	40 - 117	1	30	
2-Nitroaniline	1	1.05		µg/L		105	69 - 114	9	30	
2-Nitrophenol	1	0.559		µg/L		56	40 - 117	0	30	
3+4-Methylphenol	1	0.77		µg/L		77	0 - 130	4	30	
3-Nitroaniline	1	1.29		µg/L		129	23 - 137	11	30	
4-Bromophenylphenyl ether	1	0.94		µg/L		94	61 - 132	2	30	
4-Chloro-3-methylphenol	1	0.87		µg/L		87	51 - 128	6	30	
4-Chloroaniline	1	1.01		µg/L		101	50 - 150	18	30	
4-Chlorophenylphenyl ether	1	0.914		µg/L		91	63 - 130	2	30	
4-Nitroaniline	2	2.72		µg/L		136	10 - 159	18	30	
4-Nitrophenol	1	0.98		µg/L		98	10 - 164	11	30	
6-tert-butyl-2,4-dimethylphenol	1	0.856		µg/L		86	50 - 150	5	30	
Acenaphthene	1.5	1.5		µg/L		100	53 - 131	0	30	
Acenaphthylene	1.5	1.53		µg/L		102	43 - 140	0	30	
Aniline	0.5	0.61		µg/L		122	50 - 150	14	30	
Anthracene	1.5	1.4		µg/L		93	58 - 135	0	30	
Benz[a]anthracene	1.5	1.38		µg/L		92	55 - 145	1	30	
Benzidine	1	0.0401		µg/L		4	0 - 125	0	30	
Benzo[a]pyrene	1.5	1.28		µg/L		85	51 - 143	2	30	
Benzo[b]fluoranthene	1.5	1.41		µg/L		94	46 - 165	1	30	

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 98812-BS2
Matrix: water
Analysis Batch: O-38096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38096_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Benzo[e]pyrene	0.5	0.472		µg/L		94	42 - 152	3	30	
Benzo[g,h,i]perylene	1.5	1.5		µg/L		100	63 - 133	1	30	
Benzo[k]fluoranthene	1.5	1.33		µg/L		89	56 - 145	0	30	
Benzoic Acid	1	0.546		µg/L		55	2 - 145	2	30	
Benzyl Alcohol	1	0.76		µg/L		76	43 - 148	3	30	
Biphenyl	0.5	0.474		µg/L		95	56 - 119	3	30	
Bis(2-Chloroethoxy) methane	1	0.884		µg/L		88	66 - 122	2	30	
Bis(2-Chloroethyl) ether	1	0.633		µg/L		63	43 - 127	6	30	
Bis(2-Chloroisopropyl) ether	1	0.976		µg/L		98	49 - 128	10	30	
Chrysene	1.5	1.34		µg/L		89	56 - 141	1	30	
Dibenz[a,h]anthracene	1.5	1.4		µg/L		93	55 - 150	2	30	
Dibenzo[a,l]pyrene	0.5	0.521		µg/L		104	50 - 150	7	30	
Dibenzofuran	1	0.891		µg/L		89	50 - 150	1	30	
Dibenzothiophene	0.5	0.441		µg/L		88	75 - 113	2	30	
Disalicylidenepropanediamine	50	44.7		µg/L		89	50 - 150	18	30	
Fluoranthene	1.5	1.38		µg/L		92	60 - 146	1	30	
Fluorene	1.5	1.61		µg/L		107	58 - 131	1	30	
Hexachloroethane	1	0.715		µg/L		71	27 - 130	7	30	
Indeno[1,2,3-cd]pyrene	1.5	1.42		µg/L		95	50 - 151	2	30	
Naphthalene	1.5	1.29		µg/L		86	41 - 126	3	30	
Nitrobenzene	1	0.757		µg/L		76	54 - 111	5	30	
N-Nitrosodi-n-propylamine	1	0.853		µg/L		85	61 - 152	2	30	
N-Nitrosodiphenylamine	1	1.03		µg/L		103	49 - 142	2	30	
Pentachlorophenol	1	1.04		µg/L		104	36 - 111	13	30	
Perylene	0.5	0.479		µg/L		96	48 - 141	1	30	
Phenanthrene	1.5	1.44		µg/L		96	67 - 127	1	30	
Phenol	1	0.648		µg/L		65	29 - 114	3	30	
p-tert-Butylphenol	1	1.07		µg/L		107	50 - 150	4	30	
Pyrene	1.5	1.41		µg/L		94	54 - 156	3	30	

Surrogate	LCS DUP %Recovery	LCS DUP Qualifier	Limits
(2,4,6-Tribromophenol)	80		44 - 159
(d10-Acenaphthene)	97		65 - 113
(d10-Phenanthrene)	98		80 - 111
(d12-Chrysene)	100		60 - 139
(d12-Perylene)	98		36 - 161
(d5-Phenol)	97		20 - 121
(d8-Naphthalene)	84		44 - 119

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Lab Sample ID: 22DSH001WB
Matrix: WATER
Analysis Batch: 22DSH001W

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
DIESEL	ND	U	0.025		mg/L			08/02/22 14:45	1
JP5	ND	U	0.05		mg/L			08/02/22 14:45	1
JP8	ND	U	0.05		mg/L			08/02/22 14:45	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-12377-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 22DSH001WB
Matrix: WATER
Analysis Batch: 22DSH001W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MOTOR OIL	ND	U	0.05		mg/L			08/02/22 14:45	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOBENZENE								08/02/22 14:45	1
HEXACOSANE								08/02/22 14:45	1

Lab Sample ID: 22DSH001WL
Matrix: WATER
Analysis Batch: 22DSH001W

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	2.21		mg/L		88	50 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
BROMOBENZENE	80		60 - 130				
HEXACOSANE	90		60 - 130				

Lab Sample ID: 22J5H001WL
Matrix: WATER
Analysis Batch: 22DSH001W

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	2.14		mg/L		86	30 - 160
Surrogate	%Recovery	LCS Qualifier	Limits				
BROMOBENZENE	92		60 - 130				
HEXACOSANE	92		60 - 130				

Lab Sample ID: 22J8H001WL
Matrix: WATER
Analysis Batch: 22DSH001W

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	1.99		mg/L		80	30 - 160
Surrogate	%Recovery	LCS Qualifier	Limits				
BROMOBENZENE	102		60 - 130				
HEXACOSANE	95		60 - 130				

Lab Sample ID: 22G287-01M
Matrix: WATER
Analysis Batch: 22DSH001W

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
DIESEL	ND		2.55	2.18		mg/L		85	50 - 130

QC Sample Results

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

Job ID: 380-12377-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 22G287-01M
Matrix: WATER
Analysis Batch: 22DSH001W

Client Sample ID: Matrix Spike
Prep Type: Total/NA

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	73		60 - 130
HEXACOSANE	94		60 - 130

Lab Sample ID: 22G287-01M
Matrix: WATER
Analysis Batch: 22DSH001W

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
JP5	ND		2.65	1.84		mg/L		69	30 - 160

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	69		60 - 130
HEXACOSANE	90		60 - 130

Lab Sample ID: 22G287-01S
Matrix: WATER
Analysis Batch: 22DSH001W

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
DIESEL	ND		2.65	2.26		mg/L		85	50 - 130	4	30

	MSD	MSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	70		60 - 130
HEXACOSANE	95		60 - 130

Lab Sample ID: 22G287-01S
Matrix: WATER
Analysis Batch: 22DSH001W

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
JP5	ND		2.7	2.21		mg/L		82	30 - 160	18	30

	MSD	MSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	77		60 - 130
HEXACOSANE	93		60 - 130

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22MEG004WB
Matrix: WATER
Analysis Batch: 22MEG004W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			07/29/22 13:27	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-12377-1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics (Continued)

Lab Sample ID: 22MEG004WL
Matrix: WATER
Analysis Batch: 22MEG004W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	10000	9670		ug/L		97	60 - 130

Lab Sample ID: 22G287-01M
Matrix: WATER
Analysis Batch: 22MEG004W

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	ND		10000	9490		ug/L		95	60 - 130

Lab Sample ID: 22G287-01S
Matrix: WATER
Analysis Batch: 22MEG004W

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ETHANOL	ND		10000	10000		ug/L		100	60 - 130	5	30

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

Lab Sample ID: 22VGH7G06B
Matrix: WATER
Analysis Batch: 22VGH7G06

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			07/28/22 16:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE					07/28/22 16:40	1

Lab Sample ID: 22VGH7G06L
Matrix: WATER
Analysis Batch: 22VGH7G06

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	0.46		mg/L		92	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOFLUOROBENZENE	112		70 - 130

Lab Sample ID: 22G287-01M
Matrix: WATER
Analysis Batch: 22VGH7G06

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	ND		0.5	0.431		mg/L		86	50 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
BROMOFLUOROBENZENE	113		60 - 140

QC Sample Results

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

Job ID: 380-12377-1

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

Lab Sample ID: 22G287-01S
Matrix: WATER
Analysis Batch: 22VGH7G06

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GASOLINE	ND		0.5	0.401		mg/L		80	50 - 130	7	30
<i>Surrogate</i>	<i>MSD</i>	<i>MSD</i>									
BROMOFLUOROBENZENE	111										60 - 140

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QC Association Summary

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

Job ID: 380-12377-1

Subcontract

Analysis Batch: O-38096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-38096_P
98812-B1	Method Blank	Total/NA	water	625 PAH Physis LL (EAL) + TICs	O-38096_P
98812-BS1	Lab Control Sample	Total/NA	water	625 PAH Physis LL (EAL) + TICs	O-38096_P
98812-BS2	Lab Control Sample Dup	Total/NA	water	625 PAH Physis LL (EAL) + TICs	O-38096_P

Analysis Batch: 22DSH001W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015 Diesel LL (EAL) and Motor Oil	
22DSH001WB	Method Blank	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22DSH001WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22J5H001WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22J8H001WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22G287-01M	Matrix Spike	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22G287-01M	Matrix Spike	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22G287-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22G287-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	

Analysis Batch: 22MEG004W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015 Ethanol	
22MEG004WB	Method Blank	Total/NA	WATER	8015 Ethanol	
22MEG004WL	Lab Control Sample	Total/NA	WATER	8015 Ethanol	
22G287-01M	Matrix Spike	Total/NA	WATER	8015 Ethanol	
22G287-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Ethanol	

Analysis Batch: 22VGH7G06

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-12377-2	TB:AIEA GULCH WELLS P1 (331-201-TP071)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-12377-1

Subcontract (Continued)

Analysis Batch: 22VGH7G06 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
22VGH7G06B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7G06L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22G287-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22G287-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-38096_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	EPA_625	
98812-B1	Method Blank	Total/NA	water	EPA_625	
98812-BS1	Lab Control Sample	Total/NA	water	EPA_625	
98812-BS2	Lab Control Sample Dup	Total/NA	water	EPA_625	



Lab Chronicle

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

Job ID: 380-12377-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-12377-1

Date Collected: 07/25/22 09:37

Matrix: Drinking Water

Date Received: 07/27/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA_625		1	O-38096_P			07/28/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-38096	YC		09/01/22 04:42
Total/NA	Analysis	8015 Diesel LL (EAL) and Motor Oil		1	22DSH001W	SDees		08/02/22 16:55
Total/NA	Analysis	8015 Ethanol		1	22MEG004W	ASitu		07/29/22 14:13
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7G06	SCerva		07/28/22 18:26

Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)

Lab Sample ID: 380-12377-2

Date Collected: 07/25/22 09:37

Matrix: Water

Date Received: 07/27/22 10:15

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	22VGH7G06	SCerva		07/28/22 20:12

Laboratory References:

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

Method Summary

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

Job ID: 380-12377-1

Method	Method Description	Protocol	Laboratory
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - Jet Fuel 5 (JP5)	EPA	
8015	8015 - Jet Fuel 8 (JP8)	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: 380-12377-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-12377-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	07/25/22 09:37	07/27/22 10:15
380-12377-2	TB:AIEA GULCH WELLS P1 (331-201-TP071)	Water	07/25/22 09:37	07/27/22 10:15

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LABORATORIES, INC.®

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

Date: 08-17-2022
EMAX Batch No.: 22G287

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-12377

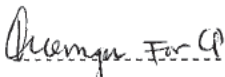
Enclosed is the Laboratory report for samples received on 07/28/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-12377-1	G287-01	07/25/22	WATER	TPH GASOLINE TPH ETHANOL
380-12377-2	G287-02	07/25/22	WATER	TPH GASOLINE
380-12377-1MS	G287-01M	07/25/22	WATER	TPH GASOLINE TPH DIESEL TPH JP-5
380-12377-1MSD	G287-01S	07/25/22	WATER	TPH GASOLINE TPH DIESEL TPH JP-5

The results are summarized on the following pages.

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

Sincerely yours,


Caspar J. Pang
Laboratory Director

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

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

NELAP Accredited Certificate Number CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672



Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>226207</u> Recipient <u>Derek Sholl</u> Date <u>07/20/22</u> Time <u>11:30</u>
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COC INSPECTION

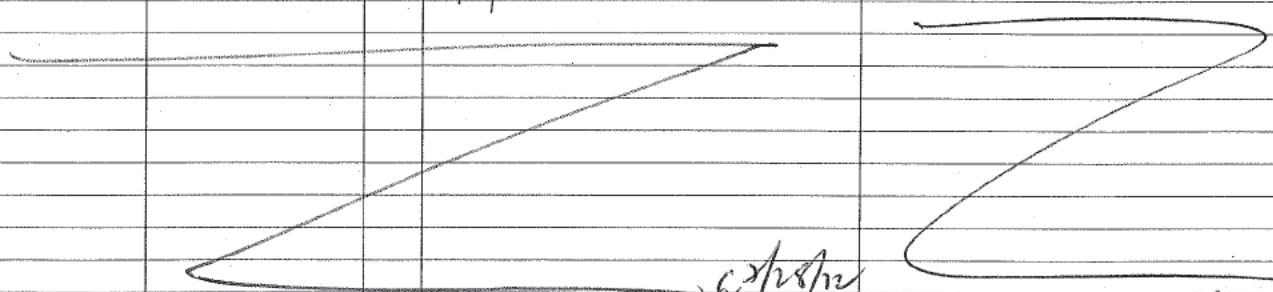
<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any) Note:	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>3.7</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
Thermometer:	A - S/N <u>210583479</u>	B - S/N _____	C - S/N <u>210271399</u>
			D - S/N <u>210700272</u>

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

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>1, 2</u>	<u>9-14, 15, 16</u>	<u>D1</u>		<u>R1</u>
<u>2</u>	<u>15, 16</u>	<u>D7</u>	<u>two dates on label- 7/8/22 and 7/25/22</u>	<u>R1</u>
				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. MB 8/1/22

NOTES/OBSERVATIONS:
 SAMPLE MATRIX IS DRINKING WATER? YES NO

- LEGEND:**
- | | | |
|---|---|--|
| <p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p><u>D1</u> Analysis is not indicated in <u>label</u></p> <p>D2 Analysis mismatch COC vs label</p> <p>D3 Sample ID mismatch COC vs label</p> <p>D4 Sample ID is not indicated in _____</p> <p>D5 Container -[improper] [leaking] [broken]</p> <p>D6 Date/Time is not indicated in _____</p> <p><u>D7</u> Date/Time mismatch COC vs label</p> <p>D8 Sample listed in COC is not received</p> <p>D9 Sample received is not listed in COC</p> <p>D10 No initial/date on corrections in COC/label</p> <p>D11 Container count mismatch COC vs received</p> <p>D12 Container size mismatch COC vs received</p> | <p>Code Description-Sample Management</p> <p>D13 Out of Holding Time</p> <p>D14 Bubble is >6mm</p> <p>D15 No trip blank in cooler</p> <p>D16 Preservation not indicated in _____</p> <p>D17 Preservation mismatch COC vs label</p> <p>D18 Insufficient chemical preservative</p> <p>D19 Insufficient Sample</p> <p>D20 No filtration info for dissolved analysis</p> <p>D21 No sample for moisture determination</p> <p>D22 _____</p> <p>D23 _____</p> <p>D24 _____</p> | <p>Code Description-Sample Management</p> <p>R1 Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label</p> <p>R2 Refer to attached instruction</p> <p>R3 Cancel the analysis</p> <p>R4 Use vial with smallest bubble first</p> <p>R5 Log-in with latest sampling date and time+ 1 min</p> <p>R6 Adjust pH as necessary</p> <p>R7 Filter and preserved as necessary</p> <p>R8 _____</p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p> |
|---|---|--|

REVIEWS:

Sample Labeling <u>Joelyne Gollis-Pames</u>	SRF <u>Cecilia</u>	PM <u>MB</u>
Date <u>07/20/22</u>	Date <u>7/28/22</u>	Date <u>8/1/22</u>

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

380-12377

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

SDG#: 22G287

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CASE NARRATIVE

Client : EUROFINs EATON ANALYTICAL

Project: 380-12377

SDG : 22G287

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

A total of two(2) water samples were received on 07/28/22 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. VGH7G06B - 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. VGH7G06L/VGH7G06C 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 G287-01M/G287-01S. 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 : 380-12377
 SDG NO. : 22G287
 Instrument ID : H7

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VGH7G06B	1	NA	07/28/2216:40	07/28/2216:40	AG28005A	AG28004A	22VGH7G06	Method Blank
LCS1W	VGH7G06L	1	NA	07/28/2217:15	07/28/2217:15	AG28006A	AG28004A	22VGH7G06	Lab Control Sample (LCS)
LCD1W	VGH7G06C	1	NA	07/28/2217:51	07/28/2217:51	AG28007A	AG28004A	22VGH7G06	LCS Duplicate
380-12377-1	G287-01	1	NA	07/28/2218:26	07/28/2218:26	AG28008A	AG28004A	22VGH7G06	Field Sample
380-12377-1MS	G287-01M	1	NA	07/28/2219:02	07/28/2219:02	AG28009A	AG28004A	22VGH7G06	Matrix Spike Sample (MS)
380-12377-1MSD	G287-01S	1	NA	07/28/2219:37	07/28/2219:37	AG28010A	AG28004A	22VGH7G06	MS Duplicate (MSD)
380-12377-2	G287-02	1	NA	07/28/2220:12	07/28/2220:12	AG28011A	AG28004A	22VGH7G06	Field Sample

FN - Filename
 % Moist - Percent Moisture



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SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 07/25/22 09:37
Project     : 380-12377                   Date Received: 07/28/22
Batch No.   : 22G287                       Date Extracted: 07/28/22 20:12
Sample ID   : 380-12377-2                 Date Analyzed: 07/28/22 20:12
Lab Samp ID: G287-02                       Dilution Factor: 1
Lab File ID: AG28011A                       Matrix: WATER
Ext Btch ID: 22VGH7G06                       % Moisture: NA
Calib. Ref.: AG28004A                       Instrument ID: H7
=====

```

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	0.0364	0.0400	91	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

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QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 07/28/22 16:40
Project     : 380-12377                   Date Received: 07/28/22
Batch No.   : 22G287                       Date Extracted: 07/28/22 16:40
Sample ID   : MBLK1W                       Date Analyzed: 07/28/22 16:40
Lab Samp ID: VGH7G06B                     Dilution Factor: 1
Lab File ID: AG28005A                     Matrix: WATER
Ext Btch ID: 22VGH7G06                   % Moisture: NA
Calib. Ref.: AG28004A                   Instrument ID: H7
=====

```

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	0.0360	0.0400	90	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 : 380-12377
BATCH NO. : 22G287
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W       LCD1W
LAB SAMPLE ID : VGH7G06B                         VGH7G06L   VGH7G06C
LAB FILE ID  : AG28005A                         AG28006A   AG28007A
DATE PREPARED : 07/28/22 16:40                 07/28/22 17:15
DATE ANALYZED : 07/28/22 16:40                 07/28/22 17:15
PREP BATCH   : 22VGH7G06                       22VGH7G06  22VGH7G06
CALIBRATION REF: AG28004A                       AG28004A   AG28004A
  
```

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	0.460	92	0.500	0.428	86	7	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0446	112	0.0400	0.0437	109	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 : 380-12377
BATCH NO. : 22G287
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 380-12377-1	380-12377-1MS	380-12377-1MSD
LAB SAMPLE ID	: G287-01	G287-01M	G287-01S
LAB FILE ID	: AG28008A	AG28009A	AG28010A
DATE PREPARED	: 07/28/22 18:26	07/28/22 19:02	07/28/22 19:37
DATE ANALYZED	: 07/28/22 18:26	07/28/22 19:02	07/28/22 19:37
PREP BATCH	: 22VGH7G06	22VGH7G06	22VGH7G06
CALIBRATION REF:	AG28004A	AG28004A	AG28004A

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	0.431	86	0.500	0.401	80	7	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0450	113	0.0400	0.0442	111	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-12377

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22G287

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-12377

SDG : 22G287

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/28/22 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. DSH001WB - 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. DSH001WL/DSH001WC 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 22G287-01M/22G287-01S. 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: 380-12377

SDG : 22G287

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/28/22 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. DSH001WB - 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. J5H001WL/J5H001WC 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 22G287-01M/22G287-01S. 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: 380-12377

SDG : 22G287

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 07/28/22 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. DSH001WB - 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. J8H001WL/J8H001WC 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 : 380-12377
 SDG NO. : 22G287
 Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSH001WB	1	NA	08/02/2214:45	08/01/2210:30	LH02010A	LH02004A	22DSH001W	Method Blank
LCS1W	DSH001WL	1	NA	08/02/2215:04	08/01/2210:30	LH02011A	LH02004A	22DSH001W	Lab Control Sample (LCS)
LCD1W	DSH001WC	1	NA	08/02/2215:22	08/01/2210:30	LH02012A	LH02004A	22DSH001W	LCS Duplicate
380-12377-1	G287-01	1	NA	08/02/2216:55	08/01/2210:30	LH02017A	LH02004A	22DSH001W	Field Sample
380-12377-1MS	G287-01M	1	NA	08/02/2217:13	08/01/2210:30	LH02018A	LH02004A	22DSH001W	Matrix Spike Sample (MS)
380-12377-1MSD	G287-01S	1	NA	08/02/2217:32	08/01/2210:30	LH02019A	LH02004A	22DSH001W	MS Duplicate (MSD)

FN - Filename
 % Moist - Percent Moisture



LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL
Project    : 380-12377
SDG NO.   : 22G287
Instrument ID : D5
=====
    
```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	DSH001WB	1	NA	08/02/2214:45	08/01/2210:30	LH02010A	LH02005A	22DSH001W	Method Blank
LCS1W	J5H001WL	1	NA	08/02/2215:41	08/01/2210:30	LH02013A	LH02005A	22DSH001W	Lab Control Sample (LCS)
LCD1W	J5H001WC	1	NA	08/02/2215:59	08/01/2210:30	LH02014A	LH02005A	22DSH001W	LCS Duplicate
380-12377-1	G287-01	1	NA	08/02/2216:55	08/01/2210:30	LH02017A	LH02005A	22DSH001W	Field Sample
380-12377-1MS	G287-01M	1	NA	08/02/2217:50	08/01/2210:30	LH02020A	LH02005A	22DSH001W	Matrix Spike Sample (MS)
380-12377-1MSD	G287-01S	1	NA	08/02/2218:09	08/01/2210:30	LH02021A	LH02005A	22DSH001W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 07/25/22 09:37
Project    : 380-12377                   Date Received: 07/28/22
Batch No.  : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID  : 380-12377-1                 Date Analyzed: 08/02/22 16:55
Lab Samp ID: 22G287-01                   Dilution Factor: 1
Lab File ID: LH02017A                     Matrix: WATER
Ext Btch ID: 22DSH001W                   % Moisture: NA
Calib. Ref.: LH02004A                   Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.027	0.014	
Motor Oil	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.387	0.545	71	60-130
Hexacosane	0.126	0.136	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 : 920ml Final Volume : 5ml
Prepared by : POrto Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 07/25/22 09:37
Project     : 380-12377                   Date Received: 07/28/22
Batch No.   : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID   : 380-12377-1                 Date Analyzed: 08/02/22 16:55
Lab Samp ID: 22G287-01                   Dilution Factor: 1
Lab File ID: LHO2017A                     Matrix: WATER
Ext Btch ID: 22DSH001W                   % Moisture: NA
Calib. Ref.: LHO2005A                     Instrument ID: D5
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.387	0.545	71	60-130
Hexacosane	0.126	0.136	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 : 920ml Final Volume : 5ml
 Prepared by : P0reto Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 07/25/22 09:37
Project     : 380-12377                   Date Received: 07/28/22
Batch No.   : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID   : 380-12377-1                 Date Analyzed: 08/02/22 16:55
Lab Samp ID: 22G287-01                     Dilution Factor: 1
Lab File ID: LH02017A                       Matrix: WATER
Ext Btch ID: 22DSH001W                       % Moisture: NA
Calib. Ref.: LH02006A                       Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.387	0.545	71	60-130
Hexacosane	0.126	0.136	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 : 920ml Final Volume : 5ml
 Prepared by : POrto Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/01/22 10:30
Project     : 380-12377                   Date Received: 08/01/22
Batch No.   : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID   : MBLK1W                       Date Analyzed: 08/02/22 14:45
Lab Samp ID: DSH001WB                     Dilution Factor: 1
Lab File ID: LHO2010A                     Matrix: WATER
Ext Btch ID: 22DSH001W                   % Moisture: NA
Calib. Ref.: LHO2004A                   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	0.346	0.500	69	60-130
Hexacosane	0.104	0.125	83	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 : P0reto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-12377
BATCH NO. : 22G287
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSH001WB	DSH001WL
LAB FILE ID	: LH02010A	LH02011A
DATE PREPARED	: 08/01/22 10:30	08/01/22 10:30
DATE ANALYZED	: 08/02/22 14:45	08/02/22 15:04
PREP BATCH	: 22DSH001W	22DSH001W
CALIBRATION REF:	LH02004A	LH02004A

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	2.21	88	2.50	2.32	93	5	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.398	80	0.500	0.426	85	60-130
Hexacosane	0.125	0.112	90	0.125	0.118	94	60-130

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

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/01/22 10:30
Project     : 380-12377                   Date Received: 08/01/22
Batch No.   : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID   : MBLK1W                       Date Analyzed: 08/02/22 14:45
Lab Samp ID: DSH001WB                     Dilution Factor: 1
Lab File ID: LH02010A                     Matrix: WATER
Ext Btch ID: 22DSH001W                   % Moisture: NA
Calib. Ref.: LH02005A                     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	0.346	0.500	69	60-130
Hexacosane	0.104	0.125	83	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 : POrto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-12377
BATCH NO. : 22G287
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W
LAB SAMPLE ID : DSH001WB                         J5H001WL
LAB FILE ID  : LH02010A                         LH02013A
DATE PREPARED : 08/01/22 10:30                 08/01/22 10:30
DATE ANALYZED : 08/02/22 14:45                 08/02/22 15:59
PREP BATCH   : 22DSH001W                       22DSH001W
CALIBRATION REF: LH02005A                      LH02005A
    
```

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	2.14	86	2.50	2.05	82	4	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.458	92	0.500	0.441	88	60-130
Hexacosane	0.125	0.115	92	0.125	0.114	91	60-130

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

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/01/22 10:30
Project     : 380-12377                   Date Received: 08/01/22
Batch No.   : 22G287                       Date Extracted: 08/01/22 10:30
Sample ID   : MBLK1W                       Date Analyzed: 08/02/22 14:45
Lab Samp ID: DSH001WB                      Dilution Factor: 1
Lab File ID: LH02010A                      Matrix: WATER
Ext Btch ID: 22DSH001W                    % Moisture: NA
Calib. Ref.: LH02006A                    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	0.346	0.500	69	60-130
Hexacosane	0.104	0.125	83	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 : POrto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-12377
BATCH NO. : 22G287
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W
LAB SAMPLE ID : DSH001WB                         J8H001WL
LAB FILE ID  : LH02010A                         LH02015A
DATE PREPARED : 08/01/22 10:30                 08/01/22 10:30
DATE ANALYZED : 08/02/22 14:45                 08/02/22 16:18
PREP BATCH   : 22DSH001W                       22DSH001W
CALIBRATION REF: LH02006A                     LH02006A
    
```

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	1.99	80	2.50	1.92	77	4	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.509	102	0.500	0.455	91	60-130
Hexacosane	0.125	0.119	95	0.125	0.119	95	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 : 380-12377
BATCH NO. : 22G287
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                     1
SAMPLE ID   : 380-12377-1                             380-12377-1MS  380-12377-1MSD
LAB SAMPLE ID : 22G287-01                             22G287-01M    22G287-01S
LAB FILE ID  : LH02017A                              LH02018A     LH02019A
DATE PREPARED : 08/01/22 10:30                       08/01/22 10:30 08/01/22 10:30
DATE ANALYZED : 08/02/22 16:55                       08/02/22 17:13 08/02/22 17:32
PREP BATCH   : 22DSH001W                             22DSH001W    22DSH001W
CALIBRATION REF: LH02004A                             LH02004A     LH02004A
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.55	2.18	85	2.65	2.26	85	4	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.510	0.374	73	0.530	0.370	70	60-130
Hexacosane	0.127	0.120	94	0.132	0.126	95	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-12377
BATCH NO. : 22G287
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                     1
SAMPLE ID   : 380-12377-1                             380-12377-1MSD
LAB SAMPLE ID : 22G287-01                             22G287-01s
LAB FILE ID  : LH02017A                               LH02020A
DATE PREPARED : 08/01/22 10:30                       08/01/22 10:30
DATE ANALYZED : 08/02/22 16:55                       08/02/22 18:09
PREP BATCH   : 22DSH001W                             22DSH001W
CALIBRATION REF: LH02005A                             LH02005A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JPS	ND	2.65	1.84	69	2.70	2.21	82	18	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.530	0.365	69	0.540	0.414	77	60-130
Hexacosane	0.132	0.119	90	0.135	0.126	93	60-130

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-12377

METHOD SW8015C
ALCOHOLS BY GC

SDG#: 22G287

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-12377

SDG : 22G287

METHOD SW8015C
ALCOHOLS BY GC

One(1) water sample was received on 07/28/22 to be analyzed for Alcohols by GC in accordance with Method SW8015C 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. MEG004WB - 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. MEG004WL/MEG004WC 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. Ethanol was within MS QC limits in G287-01M/G287-01S. Refer to Matrix QC summary form 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.

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SAMPLE RESULTS

METHOD SW8015C
ALCOHOLS BY GC

=====
Client : EUROFINS EATON ANALYTICAL Date Collected: 07/25/22
Project : 380-12377 Date Received: 07/28/22
Batch No. : 22G287 Date Extracted: NA
Sample ID: 380-12377-1 Date Analyzed: 07/29/22 14:13
Lab Samp ID: G287-01 Dilution Factor: 1
Lab File ID: TG29007A Matrix : WATER
Ext Btch ID: MEG004W % Moisture : NA
Calib. Ref.: TG29002A Instrument ID : GCT050
=====

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit



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QC SUMMARIES

METHOD SW8015C
ALCOHOLS BY GC

```
=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: NA
Project     : 380-12377                      Date Received: NA
Batch No.   : 22G287                         Date Extracted: NA
Sample ID   : MBLK1W                         Date Analyzed: 07/29/22 13:27
Lab Samp ID: MEG004WB                       Dilution Factor: 1
Lab File ID: TG29004A                       Matrix        : WATER
Ext Btch ID: MEG004W                        % Moisture    : NA
Calib. Ref.: TG29002A                      Instrument ID  : GCT050
=====
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
-----	-----	-----	-----
ETHANOL	ND	2000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-12377
BATCH NO.: 22G287
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: MEG004WB MEG004WL MEG004WC
LAB FILE ID: TG29004A TG29005A TG29006A
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 07/29/2213:27 07/29/2213:45 07/29/2213:58 DATE RECEIVED: NA
PREP. BATCH: MEG004W MEG004W MEG004W
CALIB. REF: TG29002A TG29002A TG29002A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9670	97	10000	9450	94	2	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-12377
BATCH NO.: 22G287
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 380-12377-1
LAB SAMP ID: G287-01 G287-01M G287-01S
LAB FILE ID: TG29007A TG29008A TG29009A
DATE EXTRACTED: NA NA NA DATE COLLECTED: 07/25/22
DATE ANALYZED: 07/29/2214:13 07/29/2214:26 07/29/2214:40 DATE RECEIVED: 07/28/22
PREP. BATCH: MEG004W MEG004W MEG004W
CALIB. REF: TG29002A TG29002A TG29002A

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9490	95	10000	10000	100	5	60-130	30

September 08, 2022

Debbie Frank
 Eurofins Eaton Analytical
 750 Royal Oaks Drive
 Suite 100
 Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-12377-1
 Physis Project ID: 1407003-258

Dear Debbie,

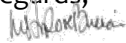
Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 7/28/2022. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1
Base/Neutral Extractable Compounds by EPA 625.1
Acid Extractable Compounds w/ PAHs by EPA 625.1
6-tert-Butyl-2,4-dimethylphenol by EPA 625.1
2,6-Di-tert-butylphenol by EPA 625.1
2,6-Di-tert-butyl-4-methylphenol by EPA 625.1
p-tert-Butylphenol 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,


 Misty Mercier
 714 602-5320
 Extension 202
 mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-258

RED-HILL Project # 38001111 Job # 380-12377-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
98813	AIEA GULCH WELLS PUMP	331-201-TP071 (380-12377-1)	7/25/2022	9:37	Samplewater	Not Specified

ABBREVIATIONS and ACRONYMS

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

QUALITY ASSURANCE SUMMARY

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

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

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

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

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

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

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

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

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

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

the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

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

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

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

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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

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.

BIOPHARMACEUTICALS ANALYTICALS REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Acid Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed	
Sample ID: 98813-R1	AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater						Sampled:	25-Jul-22	9:37	Received:	28-Jul-22	
(2,4,6-Tribromophenol)	EPA 625.1	% Recovery	59	1			Total		O-38096	28-Jul-22	01-Sep-22	
(d5-Phenol)	EPA 625.1	% Recovery	43	1			Total		O-38096	28-Jul-22	01-Sep-22	
2,4,5-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2,4,6-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2,4-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2,4-Dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
2,6-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2,6-Di-tert-butyl-4-methylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2,6-Di-tert-butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2-Chlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
2-Methyl-4,6-dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
2-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
2-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
3+4-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
4-Chloro-3-methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
4-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
6-tert-butyl-2,4-dimethylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
Benzoic Acid	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
Benzyl Alcohol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
Pentachlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	
Phenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38096	28-Jul-22	01-Sep-22	
p-tert-Butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22	

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 98813-R1	AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater						Sampled:	25-Jul-22 9:37	Received:	28-Jul-22	
2-Chloronaphthalene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
2-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
3-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
4-Bromophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
4-Chloroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
4-Chlorophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
4-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Aniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Benzidine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Bis(2-Chloroethoxy) methane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Bis(2-Chloroethyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Bis(2-Chloroisopropyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
D benzofuran	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Hexachloroethane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
Nitrobenzene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
N-Nitrosodi-n-propylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22
N-Nitrosodiphenylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38096	28-Jul-22	01-Sep-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed	
Sample ID: 98813-R1	AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater						Sampled:	25-Jul-22	9:37	Received:	28-Jul-22	
(d10-Acenaphthene)	EPA 625.1	% Recovery	55	1			Total		O-38096	28-Jul-22	01-Sep-22	
(d10-Phenanthrene)	EPA 625.1	% Recovery	59	1			Total		O-38096	28-Jul-22	01-Sep-22	
(d12-Chrysene)	EPA 625.1	% Recovery	71	1			Total		O-38096	28-Jul-22	01-Sep-22	
(d12-Perylene)	EPA 625.1	% Recovery	66	1			Total		O-38096	28-Jul-22	01-Sep-22	
(d8-Naphthalene)	EPA 625.1	% Recovery	49	1			Total		O-38096	28-Jul-22	01-Sep-22	
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
D benz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
D benzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	
D benzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22	

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38096	28-Jul-22	01-Sep-22



QUALITY CONTROL REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 98812-B1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
		Method: EPA 625.1				Batch ID: O-38096		Prepared: 28-Jul-22		Analyzed: 31-Aug-22		
(2,4,6-Tribromophenol)	Total	80	1			% Recovery	100	80	44 - 159%	PASS		
(d5-Phenol)	Total	102	1			% Recovery	100	102	20 - 121%	PASS		
2,4,5-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L						
2,4,6-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L						
2,4-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L						
2,4-Dinitrophenol	Total	ND	1	0.1	0.2	µg/L						
2,6-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L						
2,6-Di-tert-butyl-4-methylphenol	Total	ND	1	0.05	0.1	µg/L						
2,6-Di-tert-butylphenol	Total	ND	1	0.05	0.1	µg/L						
2-Chlorophenol	Total	ND	1	0.05	0.1	µg/L						
2-Methyl-4,6-dinitrophenol	Total	ND	1	0.1	0.2	µg/L						
2-Methylphenol	Total	ND	1	0.1	0.2	µg/L						
2-Nitrophenol	Total	ND	1	0.1	0.2	µg/L						
3+4-Methylphenol	Total	ND	1	0.1	0.2	µg/L						
4-Chloro-3-methylphenol	Total	ND	1	0.1	0.2	µg/L						
4-Nitrophenol	Total	ND	1	0.1	0.2	µg/L						
6-tert-butyl-2,4-dimethylphenol	Total	ND	1	0.05	0.1	µg/L						
Benzoic Acid	Total	ND	1	0.1	0.2	µg/L						
Benzyl Alcohol	Total	ND	1	0.1	0.2	µg/L						
Pentachlorophenol	Total	ND	1	0.05	0.1	µg/L						
Phenol	Total	ND	1	0.1	0.2	µg/L						
p-tert-Butylphenol	Total	ND	1	0.05	0.1	µg/L						

Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION	QA CODE
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 98812-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38096			Prepared: 28-Jul-22		Analyzed: 01-Sep-22					
(2,4,6-Tribromophenol)	Total	79	1			% Recovery	100	0	79	44 - 159%	PASS	
(d5-Phenol)	Total	104	1			% Recovery	100	0	104	20 - 121%	PASS	
2,4,5-Trichlorophenol	Total	0.871	1	0.05	0.1	µg/L	1	0	87	57 - 116%	PASS	
2,4,6-Trichlorophenol	Total	0.86	1	0.05	0.1	µg/L	1	0	86	56 - 118%	PASS	
2,4-Dichlorophenol	Total	0.84	1	0.05	0.1	µg/L	1	0	84	51 - 117%	PASS	
2,4-Dinitrophenol	Total	0.561	1	0.1	0.2	µg/L	1	0	56	0 - 152%	PASS	
2,6-Dichlorophenol	Total	0.855	1	0.05	0.1	µg/L	1	0	86	30 - 130%	PASS	
2,6-Di-tert-butyl-4-methylphenol	Total	0.725	1	0.05	0.1	µg/L	1	0	73	50 - 150%	PASS	
2,6-Di-tert-butylphenol	Total	0.773	1	0.05	0.1	µg/L	1	0	77	50 - 150%	PASS	
2-Chlorophenol	Total	0.77	1	0.05	0.1	µg/L	1	0	77	41 - 110%	PASS	
2-Methyl-4,6-dinitrophenol	Total	0.666	1	0.1	0.2	µg/L	1	0	67	0 - 141%	PASS	
2-Methylphenol	Total	0.82	1	0.1	0.2	µg/L	1	0	82	40 - 117%	PASS	
2-Nitrophenol	Total	0.558	1	0.1	0.2	µg/L	1	0	56	40 - 117%	PASS	
3+4-Methylphenol	Total	0.8	1	0.1	0.2	µg/L	1	0	80	0 - 130%	PASS	
4-Chloro-3-methylphenol	Total	0.824	1	0.1	0.2	µg/L	1	0	82	51 - 128%	PASS	
4-Nitrophenol	Total	0.885	1	0.1	0.2	µg/L	1	0	88	10 - 164%	PASS	
6-tert-butyl-2,4-dimethylphenol	Total	0.815	1	0.05	0.1	µg/L	1	0	81	50 - 150%	PASS	
Benzoic Acid	Total	0.541	1	0.1	0.2	µg/L	1	0	54	2 - 145%	PASS	
Benzyl Alcohol	Total	0.784	1	0.1	0.2	µg/L	1	0	78	43 - 148%	PASS	
Pentachlorophenol	Total	0.908	1	0.05	0.1	µg/L	1	0	91	36 - 111%	PASS	
Phenol	Total	0.674	1	0.1	0.2	µg/L	1	0	67	29 - 114%	PASS	
p-tert-Butylphenol	Total	1.03	1	0.05	0.1	µg/L	1	0	103	50 - 150%	PASS	

Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Sample ID: 98812-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:			
		Method: EPA 625.1			Batch ID: O-38096			Prepared: 28-Jul-22			Analyzed: 01-Sep-22			
(2,4,6-Tribromophenol)	Total	80	1			% Recovery	100	0	80	44 - 159%	PASS	1	30	PASS
(d5-Phenol)	Total	97	1			% Recovery	100	0	97	20 - 121%	PASS	7	30	PASS
2,4,5-Trichlorophenol	Total	0.883	1	0.05	0.1	µg/L	1	0	88	57 - 116%	PASS	1	30	PASS
2,4,6-Trichlorophenol	Total	0.915	1	0.05	0.1	µg/L	1	0	92	56 - 118%	PASS	7	30	PASS
2,4-Dichlorophenol	Total	0.852	1	0.05	0.1	µg/L	1	0	85	51 - 117%	PASS	1	30	PASS
2,4-Dinitrophenol	Total	0.56	1	0.1	0.2	µg/L	1	0	56	0 - 152%	PASS	0	30	PASS
2,6-Dichlorophenol	Total	0.834	1	0.05	0.1	µg/L	1	0	83	30 - 130%	PASS	4	30	PASS
2,6-Di-tert-butyl-4-methylphenol	Total	0.752	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	4	30	PASS
2,6-Di-tert-butylphenol	Total	0.79	1	0.05	0.1	µg/L	1	0	79	50 - 150%	PASS	3	30	PASS
2-Chlorophenol	Total	0.729	1	0.05	0.1	µg/L	1	0	73	41 - 110%	PASS	5	30	PASS
2-Methyl-4,6-dinitrophenol	Total	0.732	1	0.1	0.2	µg/L	1	0	73	0 - 141%	PASS	9	30	PASS
2-Methylphenol	Total	0.808	1	0.1	0.2	µg/L	1	0	81	40 - 117%	PASS	1	30	PASS
2-Nitrophenol	Total	0.559	1	0.1	0.2	µg/L	1	0	56	40 - 117%	PASS	0	30	PASS
3+4-Methylphenol	Total	0.77	1	0.1	0.2	µg/L	1	0	77	0 - 130%	PASS	4	30	PASS
4-Chloro-3-methylphenol	Total	0.87	1	0.1	0.2	µg/L	1	0	87	51 - 128%	PASS	6	30	PASS
4-Nitrophenol	Total	0.98	1	0.1	0.2	µg/L	1	0	98	10 - 164%	PASS	11	30	PASS
6-tert-butyl-2,4-dimethylphenol	Total	0.856	1	0.05	0.1	µg/L	1	0	86	50 - 150%	PASS	5	30	PASS
Benzoic Acid	Total	0.546	1	0.1	0.2	µg/L	1	0	55	2 - 145%	PASS	2	30	PASS
Benzyl Alcohol	Total	0.76	1	0.1	0.2	µg/L	1	0	76	43 - 148%	PASS	3	30	PASS
Pentachlorophenol	Total	1.04	1	0.05	0.1	µg/L	1	0	104	36 - 111%	PASS	13	30	PASS
Phenol	Total	0.648	1	0.1	0.2	µg/L	1	0	65	29 - 114%	PASS	3	30	PASS
p-tert-Butylphenol	Total	1.07	1	0.05	0.1	µg/L	1	0	107	50 - 150%	PASS	4	30	PASS

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 98812-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38096		Prepared: 28-Jul-22		Analyzed: 31-Aug-22					
2-Chloronaphthalene	Total	ND	1	0.05	0.1	µg/L					
2-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
3-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
4-Bromophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					
4-Chloroaniline	Total	ND	1	0.05	0.1	µg/L					
4-Chlorophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					
4-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
Aniline	Total	ND	1	0.05	0.1	µg/L					
Benzidine	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroethoxy) methane	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroethyl) ether	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroisopropyl) ether	Total	ND	1	0.05	0.1	µg/L					
Dibenzofuran	Total	ND	1	0.05	0.1	µg/L					
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L					
Hexachloroethane	Total	ND	1	0.05	0.1	µg/L					
Nitrobenzene	Total	ND	1	0.05	0.1	µg/L					
N-Nitrosodi-n-propylamine	Total	ND	1	0.05	0.1	µg/L					
N-Nitrosodiphenylamine	Total	ND	1	0.05	0.1	µg/L					

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 98812-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38096			Prepared: 28-Jul-22		Analyzed: 01-Sep-22					
2-Chloronaphthalene	Total	0.88	1	0.05	0.1	µg/L	1	0	88	53 - 130%	PASS	
2-Nitroaniline	Total	0.963	1	0.05	0.1	µg/L	1	0	96	69 - 114%	PASS	
3-Nitroaniline	Total	1.16	1	0.05	0.1	µg/L	1	0	116	23 - 137%	PASS	
4-Bromophenylphenyl ether	Total	0.922	1	0.05	0.1	µg/L	1	0	92	61 - 132%	PASS	
4-Chloroaniline	Total	0.839	1	0.05	0.1	µg/L	1	0	84	50 - 150%	PASS	
4-Chlorophenylphenyl ether	Total	0.93	1	0.05	0.1	µg/L	1	0	93	63 - 130%	PASS	
4-Nitroaniline	Total	2.29	1	0.05	0.1	µg/L	2	0	114	10 - 159%	PASS	
Aniline	Total	0.531	1	0.05	0.1	µg/L	0.5	0	106	50 - 150%	PASS	
Benzidine	Total	0.0367	1	0.05	0.1	µg/L	1	0	4	0 - 125%	PASS	
Bis(2-Chloroethoxy) methane	Total	0.903	1	0.05	0.1	µg/L	1	0	90	66 - 122%	PASS	
Bis(2-Chloroethyl) ether	Total	0.667	1	0.05	0.1	µg/L	1	0	67	43 - 127%	PASS	
Bis(2-Chloroisopropyl) ether	Total	1.08	1	0.05	0.1	µg/L	1	0	108	49 - 128%	PASS	
Dibenzofuran	Total	0.899	1	0.05	0.1	µg/L	1	0	90	50 - 150%	PASS	
Disalicylidenepropanediamin	Total	36.8	1	0.05	0.1	µg/L	50	0	74	50 - 150%	PASS	
Hexachloroethane	Total	0.772	1	0.05	0.1	µg/L	1	0	77	27 - 130%	PASS	
Nitrobenzene	Total	0.8	1	0.05	0.1	µg/L	1	0	80	54 - 111%	PASS	
N-Nitrosodi-n-propylamine	Total	0.869	1	0.05	0.1	µg/L	1	0	87	61 - 152%	PASS	
N-Nitrosodiphenylamine	Total	1.01	1	0.05	0.1	µg/L	1	0	101	49 - 142%	PASS	

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY		PRECISION		QA CODEc	
									%	LIMITS	%	LIMITS		
Sample ID: 98812-BS2		QAQC Procedural Blank				Matrix: BlankMatrix			Sampled:		Received:			
Method: EPA 625.1		Batch ID: O-38096				Prepared: 28-Jul-22			Analyzed: 01-Sep-22					
2-Chloronaphthalene	Total	0.889	1	0.05	0.1	µg/L	1	0	89	53 - 130%	PASS	1	30	PASS
2-Nitroaniline	Total	1.05	1	0.05	0.1	µg/L	1	0	105	69 - 114%	PASS	9	30	PASS
3-Nitroaniline	Total	1.29	1	0.05	0.1	µg/L	1	0	129	23 - 137%	PASS	11	30	PASS
4-Bromophenylphenyl ether	Total	0.94	1	0.05	0.1	µg/L	1	0	94	61 - 132%	PASS	2	30	PASS
4-Chloroaniline	Total	1.01	1	0.05	0.1	µg/L	1	0	101	50 - 150%	PASS	18	30	PASS
4-Chlorophenylphenyl ether	Total	0.914	1	0.05	0.1	µg/L	1	0	91	63 - 130%	PASS	2	30	PASS
4-Nitroaniline	Total	2.72	1	0.05	0.1	µg/L	2	0	136	10 - 159%	PASS	18	30	PASS
Aniline	Total	0.61	1	0.05	0.1	µg/L	0.5	0	122	50 - 150%	PASS	14	30	PASS
Benzidine	Total	0.0401	1	0.05	0.1	µg/L	1	0	4	0 - 125%	PASS	0	30	PASS
Bis(2-Chloroethoxy) methane	Total	0.884	1	0.05	0.1	µg/L	1	0	88	66 - 122%	PASS	2	30	PASS
Bis(2-Chloroethyl) ether	Total	0.633	1	0.05	0.1	µg/L	1	0	63	43 - 127%	PASS	6	30	PASS
Bis(2-Chloroisopropyl) ether	Total	0.976	1	0.05	0.1	µg/L	1	0	98	49 - 128%	PASS	10	30	PASS
Dibenzofuran	Total	0.891	1	0.05	0.1	µg/L	1	0	89	50 - 150%	PASS	1	30	PASS
Disalicylidenepropanediamin	Total	44.7	1	0.05	0.1	µg/L	50	0	89	50 - 150%	PASS	18	30	PASS
Hexachloroethane	Total	0.715	1	0.05	0.1	µg/L	1	0	71	27 - 130%	PASS	7	30	PASS
Nitrobenzene	Total	0.757	1	0.05	0.1	µg/L	1	0	76	54 - 111%	PASS	5	30	PASS
N-Nitrosodi-n-propylamine	Total	0.853	1	0.05	0.1	µg/L	1	0	85	61 - 152%	PASS	2	30	PASS
N-Nitrosodiphenylamine	Total	1.03	1	0.05	0.1	µg/L	1	0	103	49 - 142%	PASS	2	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc
							LEVEL	RESULT	% LIMITS	% LIMITS	
Sample ID: 98812-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
	Method: EPA 625.1					Batch ID: O-38096	Prepared: 28-Jul-22	Analyzed: 31-Aug-22			
(d10-Acenaphthene)	Total	93	1			% Recovery	100	93	65 - 113%	PASS	
(d10-Phenanthrene)	Total	93	1			% Recovery	100	93	80 - 111%	PASS	
(d12-Chrysene)	Total	98	1			% Recovery	100	98	60 - 139%	PASS	
(d12-Perylene)	Total	90	1			% Recovery	100	90	36 - 161%	PASS	
(d8-Naphthalene)	Total	86	1			% Recovery	100	86	44 - 119%	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					

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	ND	1	0.001	0.005	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	SOURCE	ACCURACY	PRECISION	QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 98812-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38096			Prepared: 28-Jul-22		Analyzed: 01-Sep-22					
(d10-Acenaphthene)	Total	98	1				% Recovery	100	0	98	65 - 113%	PASS
(d10-Phenanthrene)	Total	97	1				% Recovery	100	0	97	80 - 111%	PASS
(d12-Chrysene)	Total	105	1				% Recovery	100	0	105	60 - 139%	PASS
(d12-Perylene)	Total	99	1				% Recovery	100	0	99	36 - 161%	PASS
(d8-Naphthalene)	Total	87	1				% Recovery	100	0	87	44 - 119%	PASS
1-Methylnaphthalene	Total	0.439	1	0.001	0.005	µg/L		0.5	0	88	49 - 117%	PASS
1-Methylphenanthrene	Total	0.512	1	0.001	0.005	µg/L		0.5	0	102	66 - 127%	PASS
2,3,5-Trimethylnaphthalene	Total	0.456	1	0.001	0.005	µg/L		0.5	0	91	57 - 120%	PASS
2,6-Dimethylnaphthalene	Total	0.45	1	0.001	0.005	µg/L		0.5	0	90	54 - 117%	PASS
2-Methylnaphthalene	Total	1.43	1	0.001	0.005	µg/L		1.5	0	95	47 - 130%	PASS
Acenaphthene	Total	1.5	1	0.001	0.005	µg/L		1.5	0	100	53 - 131%	PASS
Acenaphthylene	Total	1.53	1	0.001	0.005	µg/L		1.5	0	102	43 - 140%	PASS
Anthracene	Total	1.4	1	0.001	0.005	µg/L		1.5	0	93	58 - 135%	PASS
Benz[a]anthracene	Total	1.4	1	0.001	0.005	µg/L		1.5	0	93	55 - 145%	PASS
Benzo[a]pyrene	Total	1.31	1	0.001	0.005	µg/L		1.5	0	87	51 - 143%	PASS
Benzo[b]fluoranthene	Total	1.42	1	0.001	0.005	µg/L		1.5	0	95	46 - 165%	PASS
Benzo[e]pyrene	Total	0.486	1	0.001	0.005	µg/L		0.5	0	97	42 - 152%	PASS
Benzo[g,h,i]perylene	Total	1.51	1	0.001	0.005	µg/L		1.5	0	101	63 - 133%	PASS
Benzo[k]fluoranthene	Total	1.34	1	0.001	0.005	µg/L		1.5	0	89	56 - 145%	PASS
Biphenyl	Total	0.459	1	0.001	0.005	µg/L		0.5	0	92	56 - 119%	PASS
Chrysene	Total	1.35	1	0.001	0.005	µg/L		1.5	0	90	56 - 141%	PASS
Dibenz[a,h]anthracene	Total	1.42	1	0.001	0.005	µg/L		1.5	0	95	55 - 150%	PASS
Dibenzo[a,l]pyrene	Total	0.485	1	0.001	0.005	µg/L		0.5	0	97	50 - 150%	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.43	1	0.001	0.005	µg/L	0.5	0	86	75 - 113%	PASS		
Fluoranthene	Total	1.37	1	0.001	0.005	µg/L	1.5	0	91	60 - 146%	PASS		
Fluorene	Total	1.59	1	0.001	0.005	µg/L	1.5	0	106	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	1.39	1	0.001	0.005	µg/L	1.5	0	93	50 - 151%	PASS		
Naphthalene	Total	1.33	1	0.001	0.005	µg/L	1.5	0	89	41 - 126%	PASS		
Perylene	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	48 - 141%	PASS		
Phenanthrene	Total	1.43	1	0.001	0.005	µg/L	1.5	0	95	67 - 127%	PASS		
Pyrene	Total	1.37	1	0.001	0.005	µg/L	1.5	0	91	54 - 156%	PASS		

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Sample ID: 98812-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:			
Method: EPA 625.1		Batch ID: O-38096			Prepared: 28-Jul-22			Analyzed: 01-Sep-22						
(d10-Acenaphthene)	Total	97	1			% Recovery	100	0	97	65 - 113%	PASS	1	30	PASS
(d10-Phenanthrene)	Total	98	1			% Recovery	100	0	98	80 - 111%	PASS	1	30	PASS
(d12-Chrysene)	Total	100	1			% Recovery	100	0	100	60 - 139%	PASS	5	30	PASS
(d12-Perylene)	Total	98	1			% Recovery	100	0	98	36 - 161%	PASS	1	30	PASS
(d8-Naphthalene)	Total	84	1			% Recovery	100	0	84	44 - 119%	PASS	4	30	PASS
1-Methylnaphthalene	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	49 - 117%	PASS	3	30	PASS
1-Methylphenanthrene	Total	0.518	1	0.001	0.005	µg/L	0.5	0	104	66 - 127%	PASS	2	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.47	1	0.001	0.005	µg/L	0.5	0	94	57 - 120%	PASS	3	30	PASS
2,6-Dimethylnaphthalene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	54 - 117%	PASS	4	30	PASS
2-Methylnaphthalene	Total	1.45	1	0.001	0.005	µg/L	1.5	0	97	47 - 130%	PASS	2	30	PASS
Acenaphthene	Total	1.5	1	0.001	0.005	µg/L	1.5	0	100	53 - 131%	PASS	0	30	PASS
Acenaphthylene	Total	1.53	1	0.001	0.005	µg/L	1.5	0	102	43 - 140%	PASS	0	30	PASS
Anthracene	Total	1.4	1	0.001	0.005	µg/L	1.5	0	93	58 - 135%	PASS	0	30	PASS
Benz[a]anthracene	Total	1.38	1	0.001	0.005	µg/L	1.5	0	92	55 - 145%	PASS	1	30	PASS
Benzo[a]pyrene	Total	1.28	1	0.001	0.005	µg/L	1.5	0	85	51 - 143%	PASS	2	30	PASS
Benzo[b]fluoranthene	Total	1.41	1	0.001	0.005	µg/L	1.5	0	94	46 - 165%	PASS	1	30	PASS
Benzo[e]pyrene	Total	0.472	1	0.001	0.005	µg/L	0.5	0	94	42 - 152%	PASS	3	30	PASS
Benzo[g,h,i]perylene	Total	1.5	1	0.001	0.005	µg/L	1.5	0	100	63 - 133%	PASS	1	30	PASS
Benzo[k]fluoranthene	Total	1.33	1	0.001	0.005	µg/L	1.5	0	89	56 - 145%	PASS	0	30	PASS
Biphenyl	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	56 - 119%	PASS	3	30	PASS
Chrysene	Total	1.34	1	0.001	0.005	µg/L	1.5	0	89	56 - 141%	PASS	1	30	PASS
Dibenz[a,h]anthracene	Total	1.4	1	0.001	0.005	µg/L	1.5	0	93	55 - 150%	PASS	2	30	PASS
Dibenzo[a,l]pyrene	Total	0.521	1	0.001	0.005	µg/L	0.5	0	104	50 - 150%	PASS	7	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Dibenzothiophene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	75 - 113%	PASS	2	30	PASS
Fluoranthene	Total	1.38	1	0.001	0.005	µg/L	1.5	0	92	60 - 146%	PASS	1	30	PASS
Fluorene	Total	1.61	1	0.001	0.005	µg/L	1.5	0	107	58 - 131%	PASS	1	30	PASS
Indeno[1,2,3-cd]pyrene	Total	1.42	1	0.001	0.005	µg/L	1.5	0	95	50 - 151%	PASS	2	30	PASS
Naphthalene	Total	1.29	1	0.001	0.005	µg/L	1.5	0	86	41 - 126%	PASS	3	30	PASS
Perylene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	48 - 141%	PASS	1	30	PASS
Phenanthrene	Total	1.44	1	0.001	0.005	µg/L	1.5	0	96	67 - 127%	PASS	1	30	PASS
Pyrene	Total	1.41	1	0.001	0.005	µg/L	1.5	0	94	54 - 156%	PASS	3	30	PASS

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PHYSIS

TENTATIVELY

IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: 98813

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.5309	7.9934	1111	Anthracene-D10	1517-22-2	96
43.0609	1.4249	198	Terephthalic acid, isobutyl butyl ester	1000323-56-2	94
14.9095	0.7657	106	Cyclohexane, 1,2,4,5-tetraethyl-, (1.alpha.,2.alpha.,4.alpha.,5.alpha.)-	61142-24-3	85
12.6185	0.7553	105	Cyclohexane, (1,2-dimethylbutyl)-	61142-37-8	92
11.7803	0.7198	100	Octane, 4,5-diethyl-	1636-41-5	96

Concentration estimated using the response for Anthracene-d10

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Sample ID: Lab Blank Batch O-38096

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.5340	7.3408	1111	Anthracene-D10-	1517-22-2	97
			No Compounds Met The Search Criteria		

Concentration estimated using the response for Anthracene-d10

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PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Project Iteration ID: 1407003-258
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111
 Job # 380-12377-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: AG
2. Date Received: 7/28/22
3. Time Received: 12:50
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)
 - 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): 4.8
 Used I/R Thermometer # 1

Inspection Info

1. Initials Inspected By: RGH

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:



Eaton Analytical

CHAIN OF CUSTODY RECORD

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: GR

SAMPLES LOGGED IN BY: _____

SAMPLE TEMP RECEIVED AT:


Colton / No. California / Arizona _____ °C (Compliance: 4 ± 2 °C)

Monrovia 3.8 °C (Compliance: 4 ± 2 °C)

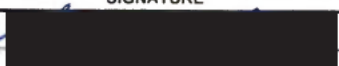
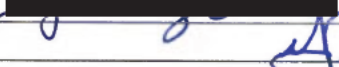

CONDITION OF BLUE ICE: Frozen _____ Partially Frozen Thawed _____ Wet Ice _____ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In FedEx UPS / DHL / Area Fast / Top Line / Other: _____

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: HONOLULU BOARD OF WATER SUPPLY		PROJECT CODE: RED HILL		COMPLIANCE SAMPLES <input type="checkbox"/> NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>			
EEA CLIENT CODE:		COC ID:		REGULATION INVOLVED: _____			
SAMPLE GROUP: 3Q2022		SEE ATTACHED BOTTLE ORDER FOR ANALYSES <input checked="" type="checkbox"/> (check for yes), OR		list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)			
TAT requested: _____		STD_X_ 1 wk _____ 3 day _____ 2 day _____ 1 day _____					
SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	SAMPLER COMMENTS
7/25/22	0937	Aiea Gulch Pump 1	HI0000331-201	CFW			Red Hill X
				 380-12377 COC			

* MATRIX TYPES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil O = Other - Please Identify
 RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY:		EJ	BWS HONOLULU	7/25/22	0937
RELINQUISHED BY:		EJ	BWS HONOLULU	7/26/22	1200
RECEIVED BY:		G PEITNER	EEA	7/27/2022	10:15
RELINQUISHED BY:					
RECEIVED BY:					



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 5.3 °C) (Corr. Factor -0.3 °C) (Final = 5.0 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1813 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (If received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(8251,862), 505, SPME, @CH, 832LCMS, 558, 539, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

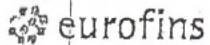
Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	G. REITNER	Eurofins Eaton Analytical	07/27/2022	10:15

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		



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Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:
 Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.
 SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 4.1 °C) (Corr. Factor -0.3 °C) (Final = 3.8 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥ 10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4) Dioxin (1813 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(8251,862), 805, SPME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		G. REITNER	Eurofins Eaton Analytical	07/27/2022	10:15
SAMPLES CHECKED AGAINST COC BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
			Eurofins Eaton Analytical		

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

ORIGIN ID:HIKA (808) 748-5840 SHIP DATE: 26 JUL 22
 BWS CHEMLAB ACTWGT: 70.00 LB
 HONOLULU BOARD OF WATER SUPPLY CAD: 100205419/NET4490
 630 S. BERETANIA ST. BILL RECIPIENT
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

TO **C CHUCK**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
 (626) 386-1178 REF
 INV PO DEPT

581J20A92FE4A



2 of 3
 WED - 27 JUL 10:30A
 PRIORITY OVERNIGHT
 91016
 CA-US BUR
 WZ WHPA
 MPS# 7774 9421 4290
 0263
 Mstr# 7774 9421 4100
 0201



After printing this label:
 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
 2. Fold the printed page along the horizontal line.
 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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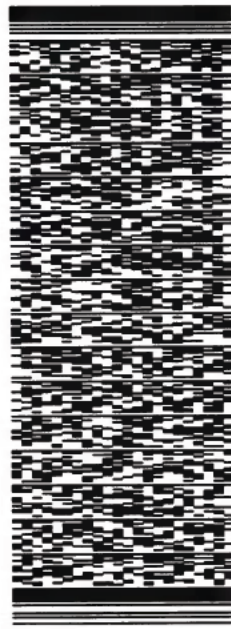
ORIGIN ID: HKA (808) 748-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE: 26 JUL 22
ACTWGT: 7.00 LB
CAD: 100205419/NET 4490
BILL RECIPIENT

TO C CHUCK

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
REF (626) 386-1178

PO INV DEPT



581.J20A92/FE4A

3 of 3

MPS# 7774 9421 4772
0263
Mstr# 7774 9421 4100

0201

WED - 27 JUL 10:30A
PRIORITY OVERNIGHT

WZ WHPA

91016
CA-US BUR



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Bottle Order Information

Bottle Order: RED-HILL - 625/8015 Bottles
 Bottle Order #: 2335
 Request From Client: 7/7/2022
 Date Order Posted: 7/7/2022 11:11:02AM
 Order Status: In Process
 Prepared By: Davis Haley
Deliver By Date: 7/8/2022 11:59:00PM
 Lab Project Number: 38001111
 PWSID:

Order Completion Information

Creator: Davis Haley
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
6	4	24	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 Acid LL (EAL) Physis	Water	Normal		
6	2	12	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 Base Neutral LL (EAL) Physis	Water	Normal		
6	2	12	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal		
6	4	24	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 8015 Ethanol	Water	Normal		
6	4	24	Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal		
6	2	12	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal	2mL of 50% HCL on the side (glass vial)	
6	2	12	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Jet Fuel 5 (JP5)	Water	Normal	2mL of 50% HCL on the side (glass vial)	
6	2	12	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Jet Fuel 8 (JP8)	Water	Normal	2mL of 50% HCL on the side (glass vial)	
6	2	12	VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Trip Blank	All preservatives in Vial	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-12377-1

Login Number: 12377
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

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	

