

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Generated 2/1/2023 12:48:05 PM

JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-31185-1

Eurofins Eaton Monrovia

Job Notes

Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.

Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

Test results relate only to the sample(s) tested.

Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

This report shall not be reproduced except in full, without the written approval of the laboratory.

This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

Compliance Statement

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

Authorization



Generated
2/1/2023 12:48:05 PM

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



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	17
Surrogate Summary	19
QC Sample Results	23
QC Association Summary	38
Lab Chronicle	40
Certification Summary	42
Method Summary	44
Sample Summary	45
Subcontract Data	46
Chain of Custody	111
Receipt Checklists	115

Definitions/Glossary

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

Job ID: 380-31185-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

Glossary

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

Case Narrative

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

Job ID: 380-31185-1

Job ID: 380-31185-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-31185-1

Comments

No additional comments.

Receipt

The samples were received on 12/13/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6° C.

GC/MS Semi VOA

Method 525.2: The laboratory control sample duplicate (LCSD) for preparation batch 380-26937 and analytical batch 380-27096 recovered outside control limits for the following analyte: Di(2-ethylhexyl)adipate. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

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

Subcontract non-Sister

See attached subcontract report.

Organic Prep

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

Subcontract Work

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

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

Detection Summary

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

No Detections.

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

No Detections.

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-31185-4

No Detections.

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-5

No Detections.

Client Sample ID: TB: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Monrovia



Client Sample Results

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

Date Collected: 12/12/22 10:47

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2,4-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2,6-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
2-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
4,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
4,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
4,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Acenaphthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Acenaphthylene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Acetochlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Alachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
alpha-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
alpha-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Anthracene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:22	1
Atrazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Benz(a)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Benzo[a]pyrene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:22	1
Benzo[b]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:22	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Benzo[k]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:22	1
beta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		12/15/22 07:21	12/16/22 15:22	1
Bromacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Butachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Butylbenzylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:22	1
Chlorobenzilate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Chloroneb	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Chlorpyrifos	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Chrysene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:22	1
delta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Di(2-ethylhexyl)adipate	ND	*+ ^3+	0.60	ug/L		12/15/22 07:21	12/16/22 15:22	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Diclorvos (DDVP)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Dieldrin	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:22	1
Diethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:22	1
Dimethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:22	1
Di-n-butyl phthalate	ND		1.0	ug/L		12/15/22 07:21	12/16/22 15:22	1
Di-n-octyl phthalate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Endosulfan I (Alpha)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Endosulfan II (Beta)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Endosulfan sulfate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Endrin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Endrin aldehyde	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
EPTC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

Date Collected: 12/12/22 10:47

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Fluorene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
gamma-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Heptachlor	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:22	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Hexachlorobenzene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Isophorone	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:22	1
Lindane	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:22	1
Malathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Methoxychlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Metolachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Metribuzin	ND	^3+	0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Molinate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Naphthalene	ND		0.30	ug/L		12/15/22 07:21	12/16/22 15:22	1
Parathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Phenanthrene	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:22	1
Propachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Simazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Terbacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Terbutylazine	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1
Thiobencarb	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:22	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:22	1
trans-Nonachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:22	1
Trifluralin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:22	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.64	T J	ug/L		2.69		12/15/22 07:21	12/16/22 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	12/15/22 07:21	12/16/22 15:22	1
Perylene-d12	97		70 - 130	12/15/22 07:21	12/16/22 15:22	1
Triphenylphosphate	106		70 - 130	12/15/22 07:21	12/16/22 15:22	1

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		12/15/22 00:00	12/25/22 15:18	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Acenaphthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Acenaphthylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

Date Collected: 12/12/22 10:47

Matrix: Drinking Water

Date Received: 12/13/22 09:45

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
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Biphenyl	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Chrysene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Dibenzothiophene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		12/15/22 00:00	12/25/22 15:18	1
Fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Fluorene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Naphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Phenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1
Pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	94		45 - 118	12/15/22 00:00	12/25/22 15:18	1
(d10-Phenanthrene)	99		56 - 123	12/15/22 00:00	12/25/22 15:18	1
(d12-Chrysene)	98		36 - 142	12/15/22 00:00	12/25/22 15:18	1
(d12-Perylene)	80		36 - 161	12/15/22 00:00	12/25/22 15:18	1
(d8-Naphthalene)	88		20 - 112	12/15/22 00:00	12/25/22 15:18	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	0.020		mg/L			12/19/22 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	95		60 - 140		12/19/22 14:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.028		mg/L			01/05/23 17:08	1
MOTOR OIL	ND	U	0.055		mg/L			01/05/23 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	75		60 - 130		01/05/23 17:08	1
HEXACOSANE	101		60 - 130		01/05/23 17:08	1

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Date Collected: 12/12/22 10:24

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
2,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
2,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Date Collected: 12/12/22 10:24

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
2,4-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
2,6-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
2-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
4,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
4,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
4,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Acenaphthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Acenaphthylene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Acetochlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Alachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
alpha-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
alpha-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Anthracene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:42	1
Atrazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Benz(a)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Benzo[a]pyrene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:42	1
Benzo[b]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:42	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Benzo[k]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:42	1
beta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		12/15/22 07:21	12/16/22 15:42	1
Bromacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Butachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Butylbenzylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:42	1
Chlorobenzilate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Chloroneb	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Chlorpyrifos	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Chrysene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 15:42	1
delta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Di(2-ethylhexyl)adipate	ND	*+ ^3+	0.60	ug/L		12/15/22 07:21	12/16/22 15:42	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Diclorvos (DDVP)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Dieldrin	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:42	1
Diethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:42	1
Dimethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:42	1
Di-n-butyl phthalate	ND		1.0	ug/L		12/15/22 07:21	12/16/22 15:42	1
Di-n-octyl phthalate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Endosulfan I (Alpha)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Endosulfan II (Beta)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Endosulfan sulfate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Endrin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Endrin aldehyde	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
EPTC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Fluoranthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Fluorene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
gamma-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Heptachlor	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:42	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Date Collected: 12/12/22 10:24

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Hexachlorobenzene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Isophorone	ND		0.50	ug/L		12/15/22 07:21	12/16/22 15:42	1
Lindane	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:42	1
Malathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Methoxychlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Metolachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Metribuzin	ND	^3+	0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Molinate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Naphthalene	ND		0.30	ug/L		12/15/22 07:21	12/16/22 15:42	1
Parathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Phenanthrene	ND		0.040	ug/L		12/15/22 07:21	12/16/22 15:42	1
Propachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Simazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Terbacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Terbutylazine	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1
Thiobencarb	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:42	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		12/15/22 07:21	12/16/22 15:42	1
trans-Nonachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 15:42	1
Trifluralin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 15:42	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				12/15/22 07:21	12/16/22 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	12/15/22 07:21	12/16/22 15:42	1
Perylene-d12	100		70 - 130	12/15/22 07:21	12/16/22 15:42	1
Triphenylphosphate	107		70 - 130	12/15/22 07:21	12/16/22 15:42	1

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		12/15/22 00:00	12/25/22 17:01	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Acenaphthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Acenaphthylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Biphenyl	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Date Collected: 12/12/22 10:24

Matrix: Drinking Water

Date Received: 12/13/22 09:45

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
Chrysene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Dibenzothiophene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		12/15/22 00:00	12/25/22 17:01	1
Fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Fluorene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Naphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Phenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1
Pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	95		45 - 118	12/15/22 00:00	12/25/22 17:01	1
(d10-Phenanthrene)	99		56 - 123	12/15/22 00:00	12/25/22 17:01	1
(d12-Chrysene)	93		36 - 142	12/15/22 00:00	12/25/22 17:01	1
(d12-Perylene)	78		36 - 161	12/15/22 00:00	12/25/22 17:01	1
(d8-Naphthalene)	90		20 - 112	12/15/22 00:00	12/25/22 17:01	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	0.020		mg/L			12/19/22 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	85		60 - 140		12/19/22 16:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			01/05/23 17:26	1
MOTOR OIL	ND	U	0.055		mg/L			01/05/23 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	81		60 - 130		01/05/23 17:26	1
HEXACOSANE	108		60 - 130		01/05/23 17:26	1

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Date Collected: 12/12/22 10:03

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2,4-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2,6-Dinitrotoluene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
2-Methylnaphthalene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
4,4'-DDD	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
4,4'-DDE	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Date Collected: 12/12/22 10:03

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Acenaphthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Acenaphthylene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Acetochlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Alachlor	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
alpha-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
alpha-Chlordane	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Anthracene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 16:02	1
Atrazine	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Benz(a)anthracene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Benzo[a]pyrene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 16:02	1
Benzo[b]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 16:02	1
Benzo[g,h,i]perylene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Benzo[k]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 16:02	1
beta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Bis(2-ethylhexyl) phthalate	ND		0.61	ug/L		12/15/22 07:21	12/16/22 16:02	1
Bromacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Butachlor	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Butylbenzylphthalate	ND		0.51	ug/L		12/15/22 07:21	12/16/22 16:02	1
Chlorobenzilate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Chloroneb	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Chlorpyrifos	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Chrysene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 16:02	1
delta-BHC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Di(2-ethylhexyl)adipate	ND	*+ ^3+	0.61	ug/L		12/15/22 07:21	12/16/22 16:02	1
Dibenz(a,h)anthracene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Diclorvos (DDVP)	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Dieldrin	ND		0.20	ug/L		12/15/22 07:21	12/16/22 16:02	1
Diethylphthalate	ND		0.51	ug/L		12/15/22 07:21	12/16/22 16:02	1
Dimethylphthalate	ND		0.51	ug/L		12/15/22 07:21	12/16/22 16:02	1
Di-n-butyl phthalate	ND		1.0	ug/L		12/15/22 07:21	12/16/22 16:02	1
Di-n-octyl phthalate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Endosulfan I (Alpha)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Endosulfan II (Beta)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Endosulfan sulfate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Endrin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Endrin aldehyde	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
EPTC	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Fluoranthene	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Fluorene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
gamma-Chlordane	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Heptachlor	ND		0.040	ug/L		12/15/22 07:21	12/16/22 16:02	1
Heptachlor epoxide (isomer B)	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Hexachlorobenzene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Hexachlorocyclopentadiene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Indeno[1,2,3-cd]pyrene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Isophorone	ND		0.51	ug/L		12/15/22 07:21	12/16/22 16:02	1
Lindane	ND		0.040	ug/L		12/15/22 07:21	12/16/22 16:02	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Date Collected: 12/12/22 10:03

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Malathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Methoxychlor	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Metolachlor	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Metribuzin	ND	^3+	0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Molinate	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Naphthalene	ND		0.30	ug/L		12/15/22 07:21	12/16/22 16:02	1
Parathion	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Phenanthrene	ND		0.040	ug/L		12/15/22 07:21	12/16/22 16:02	1
Propachlor	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Pyrene	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Simazine	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Terbacil	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Terbutylazine	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1
Thiobencarb	ND		0.20	ug/L		12/15/22 07:21	12/16/22 16:02	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		12/15/22 07:21	12/16/22 16:02	1
trans-Nonachlor	ND		0.051	ug/L		12/15/22 07:21	12/16/22 16:02	1
Trifluralin	ND		0.10	ug/L		12/15/22 07:21	12/16/22 16:02	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				12/15/22 07:21	12/16/22 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	12/15/22 07:21	12/16/22 16:02	1
Perylene-d12	99		70 - 130	12/15/22 07:21	12/16/22 16:02	1
Triphenylphosphate	103		70 - 130	12/15/22 07:21	12/16/22 16:02	1

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		12/15/22 00:00	12/25/22 18:45	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Acenaphthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Acenaphthylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Biphenyl	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Chrysene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Dibenzothiophene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		12/15/22 00:00	12/25/22 18:45	1
Fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Date Collected: 12/12/22 10:03

Matrix: Drinking Water

Date Received: 12/13/22 09:45

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
Fluorene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Naphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Phenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1
Pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	92		45 - 118	12/15/22 00:00	12/25/22 18:45	1
(d10-Phenanthrene)	98		56 - 123	12/15/22 00:00	12/25/22 18:45	1
(d12-Chrysene)	96		36 - 142	12/15/22 00:00	12/25/22 18:45	1
(d12-Perylene)	79		36 - 161	12/15/22 00:00	12/25/22 18:45	1
(d8-Naphthalene)	85		20 - 112	12/15/22 00:00	12/25/22 18:45	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	0.020		mg/L			12/19/22 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	92		60 - 140		12/19/22 17:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			01/05/23 17:44	1
MOTOR OIL	ND	U	0.053		mg/L			01/05/23 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	75		60 - 130		01/05/23 17:44	1
HEXACOSANE	89		60 - 130		01/05/23 17:44	1

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-31185-4

Date Collected: 12/12/22 10:47

Matrix: Water

Date Received: 12/13/22 09:45

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	0.020		mg/L			12/19/22 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	88		60 - 140		12/19/22 17:43	1

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-5

Date Collected: 12/12/22 10:24

Matrix: Water

Date Received: 12/13/22 09:45

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	0.020		mg/L			12/19/22 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	90		60 - 140		12/19/22 18:20	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-31185-1

Client Sample ID: TB: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-6

Date Collected: 12/12/22 10:03

Matrix: Water

Date Received: 12/13/22 09:45

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	0.020		mg/L			12/19/22 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	89		60 - 140		12/19/22 18:57	1

Action Limit Summary

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.050	525.2	Total/NA
Atrazine	ND		ug/L	3	0.050	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.60	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND	*+ ^3+	ug/L	400	0.60	525.2	Total/NA
Endrin	ND		ug/L	2	0.10	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.050	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.050	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.10	525.2	Total/NA
Simazine	ND		ug/L	4	0.050	525.2	Total/NA

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.050	525.2	Total/NA
Atrazine	ND		ug/L	3	0.050	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.60	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND	*+ ^3+	ug/L	400	0.60	525.2	Total/NA
Endrin	ND		ug/L	2	0.10	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.050	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.050	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.10	525.2	Total/NA
Simazine	ND		ug/L	4	0.050	525.2	Total/NA

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.051	525.2	Total/NA
Atrazine	ND		ug/L	3	0.051	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.61	525.2	Total/NA

Eurofins Eaton Monrovia

Action Limit Summary

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

Job ID: 380-31185-1

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)
(Continued)

Lab Sample ID: 380-31185-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	Limit	RL	Method	Prep Type
Di(2-ethylhexyl)adipate	ND	*+ ^3+	ug/L	400	0.61	525.2	Total/NA
Endrin	ND		ug/L	2	0.10	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.051	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.051	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.051	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.10	525.2	Total/NA
Simazine	ND		ug/L	4	0.051	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-31185-1	AIEA GULCH WELLS PUMP 2 (98	97	106
380-31185-1 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	98	96	106
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	99	100	107
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	97	99	103

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-31149-S-1-A MS	Matrix Spike	99	100	107
LCS 380-26937/3-A	Lab Control Sample	101	100	103
LCS 380-26937/4-A	Lab Control Sample Dup	99	98	109
MB 380-26937/1-A	Method Blank	99	97	106
MRL 380-26937/2-A	Lab Control Sample	98	96	106

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

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

Matrix: BlankMatrix

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		Acenaphthi (27-133)	Phenanth (43-129)	CRY (52-144)	NPT (25-125)	PRY (36-161)
102872-B1	Method Blank	96	99	95	93	80
102872-BS1	Lab Control Sample	88	92	79	83	76
102872-BS2	Lab Control Sample Dup	95	98	89	91	84

Surrogate Legend
 (d10-Acenaphthene) = (d10-Acenaphthene)
 (d10-Phenanthrene) = (d10-Phenanthrene)
 CRY = (d12-Chrysene)
 NPT = (d8-Naphthalene)
 PRY = (d12-Perylene)

Surrogate Summary

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

Job ID: 380-31185-1

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)	PRY (36-161)
380-31185-1	AIEA GULCH WELLS PUMP 2 (94	99	98	88	80
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	95	99	93	90	78
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	92	98	96	85	79

Surrogate Legend
 (d10-Acenaphthene) = (d10-Acenaphthene)
 (d10-Phenanthrene) = (d10-Phenanthrene)
 CRY = (d12-Chrysene)
 NPT = (d8-Naphthalene)
 PRY = (d12-Perylene)

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB (60-140)
380-31185-1	AIEA GULCH WELLS PUMP 2 (95
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	85
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	92

Surrogate Legend
 BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB
22VGH7L05B	Method Blank	

Surrogate Legend
 BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB (70-130)
22VGH7L05C	LCD	104
22VGH7L05L	Lab Control Sample	101

Surrogate Legend
 BFB = BROMOFLUOROBENZENE

Surrogate Summary

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

Job ID: 380-31185-1

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)
380-31185-4	TB:AIEA GULCH WELLS P2 (331-004-WL103)	88
380-31185-5	TB: AIEA WELLS P2 (260) (331-004-WL103)	90
380-31185-6	TB: HALAWA WELLS P1 (331-023-WL065)	89

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)
22L220-01M	Matrix Spike	103
22L220-01S	Matrix Spike Duplicate	99

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-004-WL103)	75	101
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	81	108
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	75	89

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB	XACOSAI
22DSL035WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Surrogate Summary

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

Job ID: 380-31185-1

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	HEXACOSANE (60-130)
22DSL035WC	LCD	93	107
22DSL035WL	Lab Control Sample	94	108

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 380-26937/1-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26937

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2,4'-DDD	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2,4'-DDE	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2,4'-DDT	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2,4-Dinitrotoluene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2,6-Dinitrotoluene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
2-Methylnaphthalene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
4,4'-DDD	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
4,4'-DDE	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
4,4'-DDT	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Acenaphthene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Acenaphthylene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Acetochlor	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Alachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
alpha-BHC	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
alpha-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Anthracene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 14:22	1
Atrazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Benz(a)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Benzo[a]pyrene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 14:22	1
Benzo[b]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 14:22	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Benzo[k]fluoranthene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 14:22	1
beta-BHC	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		12/15/22 07:21	12/16/22 14:22	1
Bromacil	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Butachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Butylbenzylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 14:22	1
Chlorobenzilate	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Chloroneb	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Chlorpyrifos	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Chrysene	ND		0.020	ug/L		12/15/22 07:21	12/16/22 14:22	1
delta-BHC	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		12/15/22 07:21	12/16/22 14:22	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Diclorvos (DDVP)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Dieldrin	ND		0.20	ug/L		12/15/22 07:21	12/16/22 14:22	1
Diethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 14:22	1
Dimethylphthalate	ND		0.50	ug/L		12/15/22 07:21	12/16/22 14:22	1
Di-n-butyl phthalate	ND		0.99	ug/L		12/15/22 07:21	12/16/22 14:22	1
Di-n-octyl phthalate	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Endosulfan I (Alpha)	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Endosulfan II (Beta)	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Endosulfan sulfate	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Endrin	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Endrin aldehyde	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
EPTC	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 380-26937/1-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26937

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Fluorene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
gamma-Chlordane	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Heptachlor	ND		0.040	ug/L		12/15/22 07:21	12/16/22 14:22	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Hexachlorobenzene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Isophorone	ND		0.50	ug/L		12/15/22 07:21	12/16/22 14:22	1
Lindane	ND		0.040	ug/L		12/15/22 07:21	12/16/22 14:22	1
Malathion	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Methoxychlor	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Metolachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Metribuzin	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Molinate	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Naphthalene	ND		0.30	ug/L		12/15/22 07:21	12/16/22 14:22	1
Parathion	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Phenanthrene	ND		0.040	ug/L		12/15/22 07:21	12/16/22 14:22	1
Propachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Pyrene	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Simazine	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Terbacil	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Terbutylazine	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1
Thiobencarb	ND		0.20	ug/L		12/15/22 07:21	12/16/22 14:22	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		12/15/22 07:21	12/16/22 14:22	1
trans-Nonachlor	ND		0.050	ug/L		12/15/22 07:21	12/16/22 14:22	1
Trifluralin	ND		0.099	ug/L		12/15/22 07:21	12/16/22 14:22	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.81	T J	ug/L		2.39		12/15/22 07:21	12/16/22 14:22	1
Unknown	1.02	T J	ug/L		2.68		12/15/22 07:21	12/16/22 14:22	1
Unknown	0.776	T J	ug/L		6.44		12/15/22 07:21	12/16/22 14:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	12/15/22 07:21	12/16/22 14:22	1
Perylene-d12	97		70 - 130	12/15/22 07:21	12/16/22 14:22	1
Triphenylphosphate	106		70 - 130	12/15/22 07:21	12/16/22 14:22	1

Lab Sample ID: LCS 380-26937/3-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.99	1.87		ug/L		94	70 - 130
2,4'-DDD	1.99	1.98		ug/L		100	70 - 130
2,4'-DDE	1.99	1.91		ug/L		96	70 - 130
2,4'-DDT	1.99	1.97		ug/L		99	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-26937/3-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.99	1.73		ug/L		87	70 - 130
2,6-Dinitrotoluene	1.99	1.67		ug/L		84	70 - 130
2-Methylnaphthalene	1.99	1.87		ug/L		94	70 - 130
4,4'-DDD	1.99	1.99		ug/L		100	70 - 130
4,4'-DDE	1.99	1.81		ug/L		91	70 - 130
4,4'-DDT	1.99	1.77		ug/L		89	70 - 130
Acenaphthene	1.99	1.71		ug/L		86	70 - 130
Acenaphthylene	1.99	1.82		ug/L		92	70 - 130
Acetochlor	1.99	1.90		ug/L		95	70 - 130
Alachlor	1.99	1.78		ug/L		90	70 - 130
alpha-BHC	1.99	1.87		ug/L		94	70 - 130
alpha-Chlordane	1.99	1.67		ug/L		84	70 - 130
Anthracene	1.99	1.83		ug/L		92	70 - 130
Atrazine	1.99	1.87		ug/L		94	70 - 130
Benz(a)anthracene	1.99	1.96		ug/L		99	70 - 130
Benzo[a]pyrene	1.99	2.08		ug/L		105	70 - 130
Benzo[b]fluoranthene	1.99	1.99		ug/L		100	70 - 130
Benzo[g,h,i]perylene	1.99	2.08		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.99	2.18		ug/L		110	70 - 130
beta-BHC	1.99	1.82		ug/L		92	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.85		ug/L		93	70 - 130
Bromacil	1.99	1.83		ug/L		92	70 - 130
Butachlor	1.99	1.94		ug/L		98	70 - 130
Butylbenzylphthalate	1.99	2.11		ug/L		106	70 - 130
Chlorobenzilate	1.99	1.97		ug/L		99	70 - 130
Chloroneb	1.99	1.90		ug/L		95	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	1.66		ug/L		83	70 - 130
Chlorpyrifos	1.99	2.15		ug/L		108	70 - 130
Chrysene	1.99	1.93		ug/L		97	70 - 130
delta-BHC	1.99	1.85		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.31		ug/L		116	70 - 130
Dibenz(a,h)anthracene	1.99	2.13		ug/L		107	70 - 130
Diclorvos (DDVP)	1.99	1.84		ug/L		93	70 - 130
Dieldrin	1.99	1.86		ug/L		94	70 - 130
Diethylphthalate	1.99	1.87		ug/L		94	70 - 130
Dimethylphthalate	1.99	1.83		ug/L		92	70 - 130
Di-n-butyl phthalate	3.97	3.97		ug/L		100	70 - 130
Di-n-octyl phthalate	1.99	1.78		ug/L		90	70 - 130
Endosulfan I (Alpha)	1.99	1.87		ug/L		94	70 - 130
Endosulfan II (Beta)	1.99	1.97		ug/L		99	70 - 130
Endosulfan sulfate	1.99	2.06		ug/L		104	70 - 130
Endrin	1.99	2.18		ug/L		110	70 - 130
Endrin aldehyde	1.99	1.55		ug/L		78	70 - 130
EPTC	1.99	2.04		ug/L		103	70 - 130
Fluoranthene	1.99	1.95		ug/L		98	70 - 130
Fluorene	1.99	1.81		ug/L		91	70 - 130
gamma-Chlordane	1.99	1.62		ug/L		81	70 - 130
Heptachlor	1.99	1.94		ug/L		97	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.69		ug/L		85	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-26937/3-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.99	1.76		ug/L		89	70 - 130
Hexachlorocyclopentadiene	1.99	1.68		ug/L		85	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.12		ug/L		107	70 - 130
Isophorone	1.99	1.94		ug/L		97	70 - 130
Lindane	1.99	1.82		ug/L		92	70 - 130
Malathion	1.99	1.98		ug/L		100	70 - 130
Methoxychlor	1.99	1.92		ug/L		97	70 - 130
Metolachlor	1.99	1.97		ug/L		99	70 - 130
Metribuzin	1.99	1.73		ug/L		87	70 - 130
Molinate	1.99	2.08		ug/L		105	70 - 130
Naphthalene	1.99	1.92		ug/L		97	70 - 130
Parathion	1.99	1.98		ug/L		100	70 - 130
Pendimethalin (Penoxaline)	1.99	1.73		ug/L		87	70 - 130
Phenanthrene	1.99	1.83		ug/L		92	70 - 130
Propachlor	1.99	2.04		ug/L		102	70 - 130
Pyrene	1.99	2.08		ug/L		105	70 - 130
Simazine	1.99	1.92		ug/L		97	70 - 130
Terbacil	1.99	1.84		ug/L		93	70 - 130
Terbutylazine	1.99	1.78		ug/L		90	70 - 130
Thiobencarb	1.99	2.23		ug/L		112	70 - 130
trans-Nonachlor	1.99	1.96		ug/L		99	70 - 130
Trifluralin	1.99	1.71		ug/L		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: LCSD 380-26937/4-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.98	1.89		ug/L		95	70 - 130	1	20
2,4'-DDD	1.98	2.12		ug/L		107	70 - 130	7	20
2,4'-DDE	1.98	2.06		ug/L		104	70 - 130	8	20
2,4'-DDT	1.98	2.19		ug/L		110	70 - 130	10	20
2,4-Dinitrotoluene	1.98	1.85		ug/L		93	70 - 130	7	20
2,6-Dinitrotoluene	1.98	1.73		ug/L		87	70 - 130	4	20
2-Methylnaphthalene	1.98	1.89		ug/L		95	70 - 130	1	20
4,4'-DDD	1.98	2.18		ug/L		110	70 - 130	9	20
4,4'-DDE	1.98	1.98		ug/L		100	70 - 130	9	20
4,4'-DDT	1.98	1.91		ug/L		96	70 - 130	8	20
Acenaphthene	1.98	1.76		ug/L		89	70 - 130	3	20
Acenaphthylene	1.98	1.86		ug/L		94	70 - 130	2	20
Acetochlor	1.98	2.00		ug/L		101	70 - 130	5	20
Alachlor	1.98	1.88		ug/L		95	70 - 130	5	20
alpha-BHC	1.98	1.97		ug/L		100	70 - 130	6	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-26937/4-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
alpha-Chlordane	1.98	1.79		ug/L		91	70 - 130	7	20	
Anthracene	1.98	1.94		ug/L		98	70 - 130	6	20	
Atrazine	1.98	2.02		ug/L		102	70 - 130	8	20	
Benz(a)anthracene	1.98	2.14		ug/L		108	70 - 130	9	20	
Benzo[a]pyrene	1.98	2.15		ug/L		109	70 - 130	4	20	
Benzo[b]fluoranthene	1.98	2.04		ug/L		103	70 - 130	3	20	
Benzo[g,h,i]perylene	1.98	2.10		ug/L		106	70 - 130	1	20	
Benzo[k]fluoranthene	1.98	2.25		ug/L		113	70 - 130	3	20	
beta-BHC	1.98	1.98		ug/L		100	70 - 130	9	20	
Bis(2-ethylhexyl) phthalate	1.98	1.94		ug/L		98	70 - 130	4	20	
Bromacil	1.98	2.04		ug/L		103	70 - 130	11	20	
Butachlor	1.98	2.10		ug/L		106	70 - 130	8	20	
Butylbenzylphthalate	1.98	2.24		ug/L		113	70 - 130	6	20	
Chlorobenzilate	1.98	2.04		ug/L		103	70 - 130	3	20	
Chloroneb	1.98	1.98		ug/L		100	70 - 130	4	20	
Chlorothalonil (Draconil, Bravo)	1.98	1.92		ug/L		97	70 - 130	15	20	
Chlorpyrifos	1.98	2.32		ug/L		117	70 - 130	8	20	
Chrysene	1.98	2.01		ug/L		101	70 - 130	4	20	
delta-BHC	1.98	2.07		ug/L		104	70 - 130	11	20	
Di(2-ethylhexyl)adipate	1.98	2.76	*+	ug/L		139	70 - 130	18	20	
Dibenz(a,h)anthracene	1.98	2.21		ug/L		112	70 - 130	4	20	
Diclorvos (DDVP)	1.98	1.92		ug/L		97	70 - 130	4	20	
Dieldrin	1.98	1.98		ug/L		100	70 - 130	6	20	
Diethylphthalate	1.98	1.95		ug/L		98	70 - 130	4	20	
Dimethylphthalate	1.98	1.87		ug/L		94	70 - 130	2	20	
Di-n-butyl phthalate	3.96	4.09		ug/L		103	70 - 130	3	20	
Di-n-octyl phthalate	1.98	1.97		ug/L		99	70 - 130	10	20	
Endosulfan I (Alpha)	1.98	2.00		ug/L		101	70 - 130	7	20	
Endosulfan II (Beta)	1.98	2.11		ug/L		107	70 - 130	7	20	
Endosulfan sulfate	1.98	2.23		ug/L		113	70 - 130	8	20	
Endrin	1.98	2.42		ug/L		122	70 - 130	11	20	
Endrin aldehyde	1.98	1.59		ug/L		80	70 - 130	3	20	
EPTC	1.98	2.01		ug/L		102	70 - 130	1	20	
Fluoranthene	1.98	2.12		ug/L		107	70 - 130	8	20	
Fluorene	1.98	1.85		ug/L		94	70 - 130	2	20	
gamma-Chlordane	1.98	1.75		ug/L		88	70 - 130	8	20	
Heptachlor	1.98	2.07		ug/L		104	70 - 130	7	20	
Heptachlor epoxide (isomer B)	1.98	1.80		ug/L		91	70 - 130	6	20	
Hexachlorobenzene	1.98	1.79		ug/L		91	70 - 130	2	20	
Hexachlorocyclopentadiene	1.98	1.74		ug/L		88	70 - 130	3	20	
Indeno[1,2,3-cd]pyrene	1.98	2.18		ug/L		110	70 - 130	3	20	
Isophorone	1.98	1.93		ug/L		98	70 - 130	0	20	
Lindane	1.98	1.97		ug/L		99	70 - 130	8	20	
Malathion	1.98	2.16		ug/L		109	70 - 130	9	20	
Methoxychlor	1.98	2.00		ug/L		101	70 - 130	4	20	
Metolachlor	1.98	2.09		ug/L		105	70 - 130	6	20	
Metribuzin	1.98	1.65		ug/L		83	70 - 130	4	20	
Molinate	1.98	2.13		ug/L		107	70 - 130	2	20	
Naphthalene	1.98	1.93		ug/L		97	70 - 130	0	20	

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-26937/4-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Parathion	1.98	2.14		ug/L		108	70 - 130	8	20
Pendimethalin (Penoxaline)	1.98	1.90		ug/L		96	70 - 130	9	20
Phenanthrene	1.98	1.92		ug/L		97	70 - 130	5	20
Propachlor	1.98	2.15		ug/L		108	70 - 130	5	20
Pyrene	1.98	2.26		ug/L		114	70 - 130	8	20
Simazine	1.98	2.07		ug/L		105	70 - 130	8	20
Terbacil	1.98	2.11		ug/L		106	70 - 130	14	20
Terbutylazine	1.98	1.92		ug/L		97	70 - 130	8	20
Thiobencarb	1.98	2.34		ug/L		118	70 - 130	5	20
trans-Nonachlor	1.98	2.19		ug/L		111	70 - 130	11	20
Trifluralin	1.98	1.76		ug/L		89	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: MRL 380-26937/2-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0992	0.109		ug/L		110	50 - 150
2,4'-DDD	0.0992	0.142		ug/L		143	50 - 150
2,4'-DDE	0.0992	0.102		ug/L		103	50 - 150
2,4'-DDT	0.0992	0.0951	J	ug/L		96	50 - 150
2,4-Dinitrotoluene	0.0992	0.0755	J	ug/L		76	50 - 150
2,6-Dinitrotoluene	0.0992	0.0788	J	ug/L		79	50 - 150
2-Methylnaphthalene	0.0992	0.108		ug/L		109	50 - 150
4,4'-DDD	0.0992	0.104		ug/L		105	50 - 150
4,4'-DDE	0.0992	0.0997		ug/L		100	50 - 150
4,4'-DDT	0.0992	0.132		ug/L		133	50 - 150
Acenaphthene	0.0992	0.0987	J	ug/L		99	50 - 150
Acenaphthylene	0.0992	0.0913	J	ug/L		92	50 - 150
Acetochlor	0.0496	0.0481	J	ug/L		97	50 - 150
Alachlor	0.0496	0.0650		ug/L		131	50 - 150
alpha-BHC	0.0992	0.101		ug/L		102	50 - 150
alpha-Chlordane	0.0248	ND		ug/L		95	50 - 150
Anthracene	0.0198	ND		ug/L		92	50 - 150
Atrazine	0.0496	0.0605		ug/L		122	50 - 150
Benz(a)anthracene	0.0496	0.0481	J	ug/L		97	50 - 150
Benzo[a]pyrene	0.0198	0.0185	J	ug/L		93	50 - 150
Benzo[b]fluoranthene	0.0198	0.0200		ug/L		101	50 - 150
Benzo[g,h,i]perylene	0.0496	0.0432	J	ug/L		87	50 - 150
Benzo[k]fluoranthene	0.0198	0.0199	J	ug/L		100	50 - 150
beta-BHC	0.0992	0.0927	J	ug/L		93	50 - 150
Bis(2-ethylhexyl) phthalate	0.595	0.732		ug/L		123	50 - 150
Bromacil	0.0992	0.140		ug/L		141	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-26937/2-A
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Butachlor	0.0496	0.0695		ug/L		140	50 - 150
Butylbenzylphthalate	0.149	0.201	J	ug/L		135	50 - 150
Chlorobenzilate	0.0992	0.0868	J	ug/L		88	50 - 150
Chloroneb	0.0992	0.0995		ug/L		100	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0992	0.136		ug/L		137	50 - 150
Chlorpyrifos	0.0496	0.0551		ug/L		111	50 - 150
Chrysene	0.0198	0.0197	J	ug/L		99	50 - 150
delta-BHC	0.0992	0.122		ug/L		123	50 - 150
Di(2-ethylhexyl)adipate	0.298	0.675	^3+	ug/L		227	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0403	J	ug/L		81	50 - 150
Diclorvos (DDVP)	0.0496	0.0480	J	ug/L		97	50 - 150
Dieldrin	0.0992	0.104	J	ug/L		105	50 - 150
Diethylphthalate	0.149	0.166	J	ug/L		112	50 - 150
Dimethylphthalate	0.298	0.291	J	ug/L		98	50 - 150
Di-n-butyl phthalate	0.298	0.369	J	ug/L		124	49 - 243
Di-n-octyl phthalate	0.0992	0.122		ug/L		123	50 - 150
Endosulfan I (Alpha)	0.0992	0.0939	J	ug/L		95	50 - 150
Endosulfan II (Beta)	0.0992	0.130		ug/L		132	50 - 150
Endosulfan sulfate	0.0992	0.111		ug/L		112	50 - 150
Endrin	0.0992	0.132		ug/L		133	50 - 150
Endrin aldehyde	0.0992	ND		ug/L		81	50 - 150
EPTC	0.0992	0.0988	J	ug/L		100	50 - 150
Fluoranthene	0.0496	0.0527	J	ug/L		106	50 - 150
Fluorene	0.0496	ND		ug/L		99	50 - 150
gamma-Chlordane	0.0248	0.0245	J	ug/L		99	50 - 150
Heptachlor	0.0397	0.0569		ug/L		143	50 - 150
Heptachlor epoxide (isomer B)	0.0496	0.0512		ug/L		103	50 - 150
Hexachlorobenzene	0.0496	0.0449	J	ug/L		91	50 - 150
Hexachlorocyclopentadiene	0.0496	ND		ug/L		74	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0373	J	ug/L		75	50 - 150
Isophorone	0.0992	0.100	J	ug/L		101	50 - 150
Lindane	0.0397	0.0449		ug/L		113	50 - 150
Malathion	0.0992	0.102		ug/L		102	50 - 150
Methoxychlor	0.0992	0.123		ug/L		124	50 - 150
Metolachlor	0.0496	0.0603		ug/L		122	50 - 150
Metribuzin	0.0496	0.0823	^3+	ug/L		166	50 - 150
Molinate	0.0992	0.0936	J	ug/L		94	50 - 150
Naphthalene	0.0992	0.106	J	ug/L		107	50 - 150
Parathion	0.0992	0.118		ug/L		119	50 - 150
Pendimethalin (Penoxaline)	0.0992	0.126		ug/L		127	50 - 150
Phenanthrene	0.0198	0.0207	J	ug/L		104	50 - 150
Propachlor	0.0496	0.0491	J	ug/L		99	50 - 150
Pyrene	0.0496	0.0503		ug/L		101	50 - 150
Simazine	0.0496	0.0485	J	ug/L		98	50 - 150
Terbacil	0.0992	0.115		ug/L		116	50 - 150
Terbutylazine	0.0992	0.116		ug/L		117	50 - 150
Thiobencarb	0.0992	0.126	J	ug/L		127	50 - 150
trans-Nonachlor	0.0248	ND		ug/L		98	50 - 150
Trifluralin	0.0992	0.111		ug/L		112	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: 380-31149-S-1-A MS
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		1.95	1.90		ug/L		97	70 - 130
2,4'-DDD	ND		1.95	2.04		ug/L		105	70 - 130
2,4'-DDE	ND		1.95	2.00		ug/L		103	70 - 130
2,4'-DDT	ND		1.95	2.04		ug/L		105	70 - 130
2,4-Dinitrotoluene	ND		1.95	1.91		ug/L		98	70 - 130
2,6-Dinitrotoluene	ND		1.95	1.78		ug/L		91	70 - 130
2-Methylnaphthalene	ND		1.95	1.89		ug/L		97	70 - 130
4,4'-DDD	ND		1.95	2.06		ug/L		106	70 - 130
4,4'-DDE	ND		1.95	1.83		ug/L		94	70 - 130
4,4'-DDT	ND		1.95	1.82		ug/L		93	70 - 130
Acenaphthene	ND		1.95	1.76		ug/L		90	70 - 130
Acenaphthylene	ND		1.95	1.89		ug/L		97	70 - 130
Acetochlor	ND		1.95	1.91		ug/L		98	70 - 130
Alachlor	ND		1.95	1.79		ug/L		92	70 - 130
alpha-BHC	ND		1.95	2.01		ug/L		103	70 - 130
alpha-Chlordane	ND		1.95	1.73		ug/L		89	70 - 130
Anthracene	ND		1.95	1.76		ug/L		91	70 - 130
Atrazine	ND		1.95	2.02		ug/L		104	70 - 130
Benz(a)anthracene	ND		1.95	2.02		ug/L		104	70 - 130
Benzo[a]pyrene	ND		1.95	2.05		ug/L		105	70 - 130
Benzo[b]fluoranthene	ND		1.95	2.00		ug/L		103	70 - 130
Benzo[g,h,i]perylene	ND		1.95	2.00		ug/L		103	70 - 130
Benzo[k]fluoranthene	ND		1.95	2.24		ug/L		115	70 - 130
beta-BHC	ND		1.95	2.01		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.95	1.85		ug/L		95	70 - 130
Bromacil	ND		1.95	2.02		ug/L		104	70 - 130
Butachlor	ND		1.95	2.02		ug/L		104	70 - 130
Butylbenzylphthalate	ND		1.95	2.19		ug/L		112	70 - 130
Chlorobenzilate	ND		1.95	2.03		ug/L		104	70 - 130
Chloroneb	ND		1.95	1.96		ug/L		101	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.95	1.71		ug/L		88	70 - 130
Chlorpyrifos	ND		1.95	2.25		ug/L		116	70 - 130
Chrysene	ND		1.95	1.98		ug/L		102	70 - 130
delta-BHC	ND		1.95	1.99		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	ND	*+ ^3+	1.95	2.21		ug/L		99	70 - 130
Dibenz(a,h)anthracene	ND		1.95	2.09		ug/L		107	70 - 130
Diclorvos (DDVP)	ND		1.95	1.93		ug/L		99	70 - 130
Dieldrin	ND		1.95	1.91		ug/L		98	70 - 130
Diethylphthalate	ND		1.95	1.97		ug/L		101	70 - 130
Dimethylphthalate	ND		1.95	1.93		ug/L		99	70 - 130
Di-n-butyl phthalate	ND		3.89	4.05		ug/L		104	70 - 130
Di-n-octyl phthalate	ND		1.95	1.91		ug/L		98	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-31149-S-1-A MS
Matrix: Water
Analysis Batch: 27096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Endosulfan I (Alpha)	ND		1.95	1.91		ug/L		98	70 - 130
Endosulfan II (Beta)	ND		1.95	1.99		ug/L		102	70 - 130
Endosulfan sulfate	ND		1.95	2.11		ug/L		109	70 - 130
Endrin	ND		1.95	2.20		ug/L		113	70 - 130
Endrin aldehyde	ND		1.95	1.47		ug/L		75	70 - 130
EPTC	ND		1.95	2.07		ug/L		106	70 - 130
Fluoranthene	ND		1.95	2.06		ug/L		106	70 - 130
Fluorene	ND		1.95	1.91		ug/L		98	70 - 130
gamma-Chlordane	ND		1.95	1.62		ug/L		83	70 - 130
Heptachlor	ND		1.95	1.96		ug/L		101	70 - 130
Heptachlor epoxide (isomer B)	ND		1.95	1.75		ug/L		90	70 - 130
Hexachlorobenzene	ND		1.95	1.80		ug/L		92	70 - 130
Hexachlorocyclopentadiene	ND		1.95	1.71		ug/L		88	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.95	2.09		ug/L		108	70 - 130
Isophorone	ND		1.95	1.93		ug/L		99	70 - 130
Lindane	ND		1.95	1.96		ug/L		101	70 - 130
Malathion	ND		1.95	2.09		ug/L		107	70 - 130
Methoxychlor	ND		1.95	1.99		ug/L		102	70 - 130
Metolachlor	ND		1.95	2.09		ug/L		107	70 - 130
Metribuzin	ND	^3+	1.95	1.70		ug/L		87	70 - 130
Molinate	ND		1.95	2.21		ug/L		113	70 - 130
Naphthalene	ND		1.95	1.94		ug/L		100	70 - 130
Parathion	ND		1.95	2.04		ug/L		105	70 - 130
Pendimethalin (Penoxaline)	ND		1.95	1.86		ug/L		96	70 - 130
Phenanthrene	ND		1.95	1.86		ug/L		95	70 - 130
Propachlor	ND		1.95	2.22		ug/L		114	70 - 130
Pyrene	ND		1.95	2.20		ug/L		113	70 - 130
Simazine	ND		1.95	2.14		ug/L		110	70 - 130
Terbacil	ND		1.95	1.96		ug/L		101	70 - 130
Terbutylazine	ND		1.95	1.94		ug/L		100	70 - 130
Thiobencarb	ND		1.95	2.30		ug/L		118	70 - 130
trans-Nonachlor	ND		1.95	2.08		ug/L		107	70 - 130
Trifluralin	ND		1.95	1.81		ug/L		93	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	107		70 - 130

Lab Sample ID: 380-31185-1 DU
Matrix: Drinking Water
Analysis Batch: 27096

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	ND		ND		ug/L		NC	20
2,4'-DDD	ND		ND		ug/L		NC	20
2,4'-DDE	ND		ND		ug/L		NC	20
2,4'-DDT	ND		ND		ug/L		NC	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-31185-1 DU
Matrix: Drinking Water
Analysis Batch: 27096

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,4-Dinitrotoluene	ND		ND		ug/L		NC	20
2,6-Dinitrotoluene	ND		ND		ug/L		NC	20
2-Methylnaphthalene	ND		ND		ug/L		NC	20
4,4'-DDD	ND		ND		ug/L		NC	20
4,4'-DDE	ND		ND		ug/L		NC	20
4,4'-DDT	ND		ND		ug/L		NC	20
Acenaphthene	ND		ND		ug/L		NC	20
Acenaphthylene	ND		ND		ug/L		NC	20
Acetochlor	ND		ND		ug/L		NC	20
Alachlor	ND		ND		ug/L		NC	20
alpha-BHC	ND		ND		ug/L		NC	20
alpha-Chlordane	ND		ND		ug/L		NC	20
Anthracene	ND		ND		ug/L		NC	20
Atrazine	ND		ND		ug/L		NC	20
Benz(a)anthracene	ND		ND		ug/L		NC	20
Benzo[a]pyrene	ND		ND		ug/L		NC	20
Benzo[b]fluoranthene	ND		ND		ug/L		NC	20
Benzo[g,h,i]perylene	ND		ND		ug/L		NC	20
Benzo[k]fluoranthene	ND		ND		ug/L		NC	20
beta-BHC	ND		ND		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	ND		ND		ug/L		NC	20
Bromacil	ND		ND		ug/L		NC	20
Butachlor	ND		ND		ug/L		NC	20
Butylbenzylphthalate	ND		ND		ug/L		NC	20
Chlorobenzilate	ND		ND		ug/L		NC	20
Chloroneb	ND		ND		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	ND		ND		ug/L		NC	20
Chlorpyrifos	ND		ND		ug/L		NC	20
Chrysene	ND		ND		ug/L		NC	20
delta-BHC	ND		ND		ug/L		NC	20
Di(2-ethylhexyl)adipate	ND	*+ ^3+	ND	*+	ug/L		NC	20
Dibenz(a,h)anthracene	ND		ND		ug/L		NC	20
Diclorvos (DDVP)	ND		ND		ug/L		NC	20
Dieldrin	ND		ND		ug/L		NC	20
Diethylphthalate	ND		ND		ug/L		NC	20
Dimethylphthalate	ND		ND		ug/L		NC	20
Di-n-butyl phthalate	ND		ND		ug/L		NC	20
Di-n-octyl phthalate	ND		ND		ug/L		NC	20
Endosulfan I (Alpha)	ND		ND		ug/L		NC	20
Endosulfan II (Beta)	ND		ND		ug/L		NC	20
Endosulfan sulfate	ND		ND		ug/L		NC	20
Endrin	ND		ND		ug/L		NC	20
Endrin aldehyde	ND		ND		ug/L		NC	20
EPTC	ND		ND		ug/L		NC	20
Fluoranthene	ND		ND		ug/L		NC	20
Fluorene	ND		ND		ug/L		NC	20
gamma-Chlordane	ND		ND		ug/L		NC	20
Heptachlor	ND		ND		ug/L		NC	20
Heptachlor epoxide (isomer B)	ND		ND		ug/L		NC	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-31185-1 DU
Matrix: Drinking Water
Analysis Batch: 27096

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 26937

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Hexachlorobenzene	ND		ND		ug/L		NC	20
Hexachlorocyclopentadiene	ND		ND		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	ND		ND		ug/L		NC	20
Isophorone	ND		ND		ug/L		NC	20
Lindane	ND		ND		ug/L		NC	20
Malathion	ND		ND		ug/L		NC	20
Methoxychlor	ND		ND		ug/L		NC	20
Metolachlor	ND		ND		ug/L		NC	20
Metribuzin	ND	^3+	ND		ug/L		NC	20
Molinate	ND		ND		ug/L		NC	20
Naphthalene	ND		ND		ug/L		NC	20
Parathion	ND		ND		ug/L		NC	20
Pendimethalin (Penoxaline)	ND		ND		ug/L		NC	20
Phenanthrene	ND		ND		ug/L		NC	20
Propachlor	ND		ND		ug/L		NC	20
Pyrene	ND		ND		ug/L		NC	20
Simazine	ND		ND		ug/L		NC	20
Terbacil	ND		ND		ug/L		NC	20
Terbutylazine	ND		ND		ug/L		NC	20
Thiobencarb	ND		ND		ug/L		NC	20
Total Permethrin (mixed isomers)	ND		ND		ug/L		NC	20
trans-Nonachlor	ND		ND		ug/L		NC	20
Trifluralin	ND		ND		ug/L		NC	20
		DU	DU					
Surrogate	%Recovery	Qualifier	Limits					
2-Nitro-m-xylene	98		70 - 130					
Perylene-d12	96		70 - 130					
Triphenylphosphate	106		70 - 130					

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

Lab Sample ID: 102872-B1
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-40056_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1-Methylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Acenaphthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Acenaphthylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

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

Lab Sample ID: 102872-B1
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-40056_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Biphenyl	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Chrysene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Dibenzothiophene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		12/15/22 00:00	12/25/22 10:08	1
Fluoranthene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Fluorene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Naphthalene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Perylene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Phenanthrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1
Pyrene	ND		0.005	0.001	µg/L		12/15/22 00:00	12/25/22 10:08	1

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	96		27 - 133	12/15/22 00:00	12/25/22 10:08	1
(d10-Phenanthrene)	99		43 - 129	12/15/22 00:00	12/25/22 10:08	1
(d12-Chrysene)	95		52 - 144	12/15/22 00:00	12/25/22 10:08	1
(d12-Perylene)	80		36 - 161	12/15/22 00:00	12/25/22 10:08	1
(d8-Naphthalene)	93		25 - 125	12/15/22 00:00	12/25/22 10:08	1

Lab Sample ID: 102872-BS1
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40056_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.449		µg/L		90	31 - 128
1-Methylphenanthrene	0.5	0.465		µg/L		93	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.463		µg/L		93	55 - 122
2,6-Dimethylnaphthalene	0.5	0.454		µg/L		91	48 - 120
2-Methylnaphthalene	0.5	0.441		µg/L		88	47 - 130
Acenaphthene	0.5	0.463		µg/L		93	53 - 131
Acenaphthylene	0.5	0.467		µg/L		93	43 - 140
Anthracene	0.5	0.469		µg/L		94	58 - 135
Benz[a]anthracene	0.5	0.363		µg/L		73	55 - 145
Benzo[a]pyrene	0.5	0.388		µg/L		78	51 - 143
Benzo[b]fluoranthene	0.5	0.36		µg/L		72	46 - 165
Benzo[e]pyrene	0.5	0.397		µg/L		79	42 - 152
Benzo[g,h,i]perylene	0.5	0.399		µg/L		80	63 - 133
Benzo[k]fluoranthene	0.5	0.403		µg/L		81	56 - 145
Biphenyl	0.5	0.457		µg/L		91	56 - 119
Chrysene	0.5	0.377		µg/L		75	56 - 141
Dibenz[a,h]anthracene	0.5	0.315		µg/L		63	55 - 150
Dibenzo[a,l]pyrene	0.5	0.466		µg/L		93	50 - 150
Dibenzothiophene	0.5	0.467		µg/L		93	46 - 126
Disalicylidenepropanediamine	50	42.3		µg/L		85	50 - 150
Fluoranthene	0.5	0.459		µg/L		92	60 - 146

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

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

Lab Sample ID: 102872-BS1
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40056_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	0.5	0.468		µg/L		94	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.294		µg/L		59	50 - 151
Naphthalene	0.5	0.436		µg/L		87	41 - 126
Perylene	0.5	0.377		µg/L		75	48 - 141
Phenanthrene	0.5	0.472		µg/L		94	67 - 127
Pyrene	0.5	0.456		µg/L		91	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
(d10-Acenaphthene)	88		27 - 133
(d10-Phenanthrene)	92		43 - 129
(d12-Chrysene)	79		52 - 144
(d12-Perylene)	76		36 - 161
(d8-Naphthalene)	83		25 - 125

Lab Sample ID: 102872-BS2
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40056_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.461		µg/L		92	31 - 128	2	30
1-Methylphenanthrene	0.5	0.467		µg/L		93	66 - 127	0	30
2,3,5-Trimethylnaphthalene	0.5	0.471		µg/L		94	55 - 122	1	30
2,6-Dimethylnaphthalene	0.5	0.463		µg/L		93	48 - 120	2	30
2-Methylnaphthalene	0.5	0.458		µg/L		92	47 - 130	4	30
Acenaphthene	0.5	0.475		µg/L		95	53 - 131	2	30
Acenaphthylene	0.5	0.474		µg/L		95	43 - 140	2	30
Anthracene	0.5	0.481		µg/L		96	58 - 135	2	30
Benz[a]anthracene	0.5	0.388		µg/L		78	55 - 145	7	30
Benzo[a]pyrene	0.5	0.417		µg/L		83	51 - 143	6	30
Benzo[b]fluoranthene	0.5	0.381		µg/L		76	46 - 165	5	30
Benzo[e]pyrene	0.5	0.405		µg/L		81	42 - 152	2	30
Benzo[g,h,i]perylene	0.5	0.405		µg/L		81	63 - 133	1	30
Benzo[k]fluoranthene	0.5	0.41		µg/L		82	56 - 145	1	30
Biphenyl	0.5	0.465		µg/L		93	56 - 119	2	30
Chrysene	0.5	0.411		µg/L		82	56 - 141	9	30
Dibenz[a,h]anthracene	0.5	0.334		µg/L		67	55 - 150	6	30
Dibenzo[a,l]pyrene	0.5	0.473		µg/L		95	50 - 150	2	30
Dibenzothiophene	0.5	0.471		µg/L		94	46 - 126	1	30
Disalicylideneopropanediamine	50	47.3		µg/L		95	50 - 150	11	30
Fluoranthene	0.5	0.464		µg/L		93	60 - 146	1	30
Fluorene	0.5	0.471		µg/L		94	58 - 131	0	30
Indeno[1,2,3-cd]pyrene	0.5	0.312		µg/L		62	50 - 151	5	30
Naphthalene	0.5	0.458		µg/L		92	41 - 126	6	30
Perylene	0.5	0.382		µg/L		76	48 - 141	1	30
Phenanthrene	0.5	0.483		µg/L		97	67 - 127	3	30
Pyrene	0.5	0.466		µg/L		93	54 - 156	2	30

QC Sample Results

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

Job ID: 380-31185-1

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

Lab Sample ID: 102872-BS2
Matrix: BlankMatrix
Analysis Batch: O-40056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40056_P

Surrogate	LCS DUP %Recovery	LCS DUP Qualifier	Limits
(d10-Acenaphthene)	95		27 - 133
(d10-Phenanthrene)	98		43 - 129
(d12-Chrysene)	89		52 - 144
(d12-Perylene)	84		36 - 161
(d8-Naphthalene)	91		25 - 125

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

Lab Sample ID: 22VGH7L05B
Matrix: WATER
Analysis Batch: 22VGH7L05

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	0.020		mg/L			12/19/22 12:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE					12/19/22 12:45	1

Lab Sample ID: 22VGH7L05L
Matrix: WATER
Analysis Batch: 22VGH7L05

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	0.500	0.453		mg/L		91	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOFLUOROBENZENE	101		70 - 130

Lab Sample ID: 22L220-01M
Matrix: WATER
Analysis Batch: 22VGH7L05

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		0.500	0.429		mg/L		86	50 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
BROMOFLUOROBENZENE	103		60 - 140

Lab Sample ID: 22L220-01S
Matrix: WATER
Analysis Batch: 22VGH7L05

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		0.500	0.441		mg/L		88	50 - 130	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
BROMOFLUOROBENZENE	99		60 - 140

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-31185-1

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

Lab Sample ID: 22DSL035WB
Matrix: WATER
Analysis Batch: 22DSL035W

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			01/05/23 14:59	1
MOTOR OIL	ND	U	0.050		mg/L			01/05/23 14:59	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac	
BROMOBENZENE							01/05/23 14:59	1	
HEXACOSANE							01/05/23 14:59	1	

Lab Sample ID: 22DSL035WL
Matrix: WATER
Analysis Batch: 22DSL035W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DIESEL	2.50	2.54		mg/L		102	50 - 130
Surrogate	LCS	LCS	Limits				
BROMOBENZENE	94		60 - 130				
HEXACOSANE	108		60 - 130				

QC Association Summary

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

Job ID: 380-31185-1

GC/MS Semi VOA

Prep Batch: 26937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	525.2	
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	525.2	
MB 380-26937/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-26937/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-26937/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-26937/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-31149-S-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-31185-1 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	

Analysis Batch: 27096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	26937
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	525.2	26937
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	525.2	26937
MB 380-26937/1-A	Method Blank	Total/NA	Water	525.2	26937
LCS 380-26937/3-A	Lab Control Sample	Total/NA	Water	525.2	26937
LCSD 380-26937/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	26937
MRL 380-26937/2-A	Lab Control Sample	Total/NA	Water	525.2	26937
380-31149-S-1-A MS	Matrix Spike	Total/NA	Water	525.2	26937
380-31185-1 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	26937

Subcontract

Analysis Batch: O-40056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40056_P
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40056_P
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40056_P
102872-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40056_P
102872-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40056_P
102872-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40056_P

Analysis Batch: 22DSL035W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015 LL DRO/MRO	
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	8015 LL DRO/MRO	
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	8015 LL DRO/MRO	
22DSL035WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO	
22DSL035WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO	

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-31185-1

Subcontract

Analysis Batch: 22VGH7L05

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-31185-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-31185-5	TB: AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-31185-6	TB: HALAWA WELLS P1 (331-023-WL065)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
22VGH7L05B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7L05L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22L220-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22L220-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-40056_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	EPA_625	
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Drinking Water	EPA_625	
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Total/NA	Drinking Water	EPA_625	
102872-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
102872-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
102872-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-31185-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-31185-1

Date Collected: 12/12/22 10:47

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			26937	OTM3	EA MON	12/15/22 07:21
Total/NA	Analysis	525.2		1	27096	Q8LA	EA MON	12/16/22 15:22
Total/NA	Prep	EPA_625		1	O-40056_P			12/15/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40056	YC		12/25/22 15:18
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7L05	SCerva		12/19/22 14:37
Total/NA	Analysis	8015 LL DRO/MRO		1	22DSL035W	SDees		01/05/23 17:08

Client Sample ID: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-2

Date Collected: 12/12/22 10:24

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			26937	OTM3	EA MON	12/15/22 07:21
Total/NA	Analysis	525.2		1	27096	Q8LA	EA MON	12/16/22 15:42
Total/NA	Prep	EPA_625		1	O-40056_P			12/15/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40056	YC		12/25/22 17:01
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7L05	SCerva		12/19/22 16:29
Total/NA	Analysis	8015 LL DRO/MRO		1	22DSL035W	SDees		01/05/23 17:26

Client Sample ID: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-3

Date Collected: 12/12/22 10:03

Matrix: Drinking Water

Date Received: 12/13/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			26937	OTM3	EA MON	12/15/22 07:21
Total/NA	Analysis	525.2		1	27096	Q8LA	EA MON	12/16/22 16:02
Total/NA	Prep	EPA_625		1	O-40056_P			12/15/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40056	YC		12/25/22 18:45
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7L05	SCerva		12/19/22 17:06
Total/NA	Analysis	8015 LL DRO/MRO		1	22DSL035W	SDees		01/05/23 17:44

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-31185-4

Date Collected: 12/12/22 10:47

Matrix: Water

Date Received: 12/13/22 09:45

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	22VGH7L05	SCerva		12/19/22 17:43

Lab Chronicle

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

Job ID: 380-31185-1

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-31185-5

Date Collected: 12/12/22 10:24

Matrix: Water

Date Received: 12/13/22 09:45

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	22VGH7L05	SCerva		12/19/22 18:20

Client Sample ID: TB: HALAWA WELLS P1 (331-023-WL065)

Lab Sample ID: 380-31185-6

Date Collected: 12/12/22 10:03

Matrix: Water

Date Received: 12/13/22 09:45

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	22VGH7L05	SCerva		12/19/22 18:57

Laboratory References:

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

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-31185-1

Laboratory: Eurofins Eaton Monrovia

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-08-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4'-DDT
525.2	525.2	Drinking Water	Acenaphthene
525.2	525.2	Drinking Water	Acenaphthylene
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	Anthracene
525.2	525.2	Drinking Water	Benz(a)anthracene
525.2	525.2	Drinking Water	Benzo[b]fluoranthene
525.2	525.2	Drinking Water	Benzo[g,h,i]perylene
525.2	525.2	Drinking Water	Benzo[k]fluoranthene
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Bromacil
525.2	525.2	Drinking Water	Butylbenzylphthalate
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	Chrysene
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Dibenz(a,h)anthracene
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Diethylphthalate
525.2	525.2	Drinking Water	Dimethylphthalate
525.2	525.2	Drinking Water	Di-n-butyl phthalate
525.2	525.2	Drinking Water	Di-n-octyl phthalate
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	Fluoranthene
525.2	525.2	Drinking Water	Fluorene
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Indeno[1,2,3-cd]pyrene
525.2	525.2	Drinking Water	Isophorone

Accreditation/Certification Summary

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

Job ID: 380-31185-1

Laboratory: Eurofins Eaton Monrovia (Continued)

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

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
------------------	----------------	------------------------------	------------------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Molinate
525.2	525.2	Drinking Water	Naphthalene
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Phenanthrene
525.2	525.2	Drinking Water	Pyrene
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Thiobencarb
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Drinking Water	Trifluralin



Method Summary

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

Job ID: 380-31185-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	
525.2	Extraction of Semivolatile Compounds	EPA	EA MON

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

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100



Sample Summary

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

Job ID: 380-31185-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-31185-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	12/12/22 10:47	12/13/22 09:45
380-31185-2	AIEA WELLS P2 (260) (331-004-WL103)	Drinking Water	12/12/22 10:24	12/13/22 09:45
380-31185-3	HALAWA WELLS P1 (331-023-WL065)	Drinking Water	12/12/22 10:03	12/13/22 09:45
380-31185-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Water	12/12/22 10:47	12/13/22 09:45
380-31185-5	TB: AIEA WELLS P2 (260) (331-004-WL103)	Water	12/12/22 10:24	12/13/22 09:45
380-31185-6	TB: HALAWA WELLS P1 (331-023-WL065)	Water	12/12/22 10:03	12/13/22 09:45

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



Date: 01-17-2023
EMAX Batch No.: 22L220

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-31185

Enclosed is the Laboratory report for samples received on 12/14/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-31185-1	L220-01	12/12/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
380-31185-2	L220-02	12/12/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
380-31185-3	L220-03	12/12/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
380-31185-4	L220-04	12/12/22	WATER	TPH GASOLINE
380-31185-5	L220-05	12/12/22	WATER	TPH GASOLINE
380-31185-6	L220-06	12/12/22	WATER	TPH GASOLINE
380-31185-1MS	L220-01M	12/12/22	WATER	TPH GASOLINE
380-31185-1MSD	L220-01S	12/12/22	WATER	TPH GASOLINE

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

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



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

Chain of Custody Record

eurofins
 Environment Testing



221220

Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):						
Shipping/Receiving		Arada, Rachelle		380-30897.1						
Company:		E-Mail:		Page:						
EMAX Laboratories Inc		Rachelle.Arada@et.eurofins.com		Page 1 of 1						
Address:		State of Origin:		Job #:						
3051 Fujita Street,		Hawaii		380-31185-1						
City:		Accreditations Required (See note):		Preservation Codes:						
Torrance		State - Hawaii		A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Trizma Z - other (specify) Other:						
State, Zip:		Due Date Requested:		Analysis Requested						
CA, 90505		12/29/2022								
Phone:		TAT Requested (days):								
		PO #:								
Email:		WO #:								
		Project #:								
RED-HILL		38001111								
Site:		SSOW#:								
Honolulu BWS Sites										
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Water, Sewage, On-wastewater, BT-TISSUE, A-Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (6015 Gas (Purgeable) LL (EAL)/ 6015 Gas (Purgeable) LL (EAL))	SUB (6015 LL DROM/RO) / 8015 LL DROM/RO	Total Number of Containers	Special Instructions/Note:
AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-31185-1)	12/12/22	10:47 Hawaiian	Water	Water	X	X	X	X	6	See Attached Instructions
AIEA WELLS P2 (260) (331-004-WL103) (380-31185-2)	12/12/22	10:24 Hawaiian	Water	Water	X	X	X	X	6	See Attached Instructions
HALAWA WELLS P1 (331-023-WL065) (380-31185-3)	12/12/22	10:03 Hawaiian	Water	Water	X	X	X	X	6	See Attached Instructions
TB-AIEA GULCH WELLS P2 (331-202-TP072) (380-31185-4)	12/12/22	10:47 Hawaiian	Water	Water	X	X	X	X	2	See Attached Instructions
TB: AIEA WELLS P2 (260) (331-004-WL103) (380-31185-5)	12/12/22	10:24 Hawaiian	Water	Water	X	X	X	X	2	See Attached Instructions
TB: HALAWA WELLS P1 (331-023-WL065) (380-31185-6)	12/12/22	10:03 Hawaiian	Water	Water	X	X	X	X	2	See Attached Instructions

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

Possible Hazard Identification
 Unconfirmed

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

Special Instructions/QC Requirements:
 Primary Deliverable Rank: 2

Relinquished by:	Date:	Company:	Received by:	Date/Time:	Company:
<i>[Signature]</i>	12-14-22	ETA	<i>[Signature]</i>	12/14/22 15:46	Emx
Relinquished by:		Company	Received by:		Company
Relinquished by:		Company	Received by:		Company

Custody Seal No.: **REPORT ID- 241220**

Cooler Temperature(s) °C and Other Remarks:
 0.0





Type of Delivery	Airbill / Tracking Number	ECN <u>22L220</u>
<input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others		Recipient <u>Alan Ramos</u>
<input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery		Date <u>12/14/22</u> Time <u>15:46</u>

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 type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input checked="" 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)	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

Note: _____

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>0.6</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 _____	B - S/N <u>210760237</u>	C - S/N _____

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>1</u>	<u>1-6</u>	<u>D22</u>	<u>2nd time reads 1003</u>	<u>R1</u>
<u>3</u>	<u>13-18</u>	<u>D22</u>	<u>2nd time reads 1047</u>	<u>↓</u>
<u>4-6</u>	<u>19-24</u>	<u>D22</u>	<u>2nd time/date reads 12/18/22</u>	<u>↓</u>
<u>1</u>	<u>2</u>	<u>D10</u>	<u>at 8800</u>	<u>R8</u>
<i>MB 12/16/22</i>				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. *MB 12/16/22*

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

LEGEND:

<p>Code Description-Sample Management</p> <p>D1 Analysis is not indicated in _____</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>D7 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><input checked="" type="checkbox"/> 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><input checked="" type="checkbox"/> D22 2nd date/time on label is incorrect</p> <p>D23 _____</p> <p>D24 _____</p>	<p><input type="checkbox"/> Continue to next page.</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 <u>Informed Client</u></p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p>
---	---	---

REVIEWS:

Sample Labeling <u>Maria Rivera</u> / <u>Jocelyne Solis-Ramos</u>	SRF <u>Cecilia</u>	PM <u>MB</u>
Date <u>12/15/22</u> / <u>12/15/22</u>	Date <u>12/15/22</u>	Date <u>12/16/22</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

380-31185

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

SDG#: 22L220



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-31185

SDG : 22L220

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

A total of six(6) water samples were received on 12/14/22 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. VGH7L05B - 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. VGH7L05L/VGH7L05C 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 L220-01M/L220-01S. 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.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 12/12/22 10:47
Project     : 380-31185                      Date Received: 12/14/22
Batch No.   : 22L220                         Date Extracted: 12/19/22 14:37
Sample ID   : 380-31185-1                   Date Analyzed: 12/19/22 14:37
Lab Samp ID : L220-01                       Dilution Factor: 1
Lab File ID : AL19008A                      Matrix: WATER
Ext Btch ID : 22VGH7L05                    % Moisture: NA
Calib. Ref.: AL19004A                      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	0.0381	0.0400	95	60-140

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva



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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 12/12/22 10:24
Project     : 380-31185                   Date Received: 12/14/22
Batch No.   : 22L220                       Date Extracted: 12/19/22 16:29
Sample ID   : 380-31185-2                 Date Analyzed: 12/19/22 16:29
Lab Samp ID: L220-02                       Dilution Factor: 1
Lab File ID: AL19011A                      Matrix: WATER
Ext Btch ID: 22VGH7L05                    % Moisture: NA
Calib. Ref.: AL19004A                     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	0.0338	0.0400	85	60-140

Notes:

Parameter H-C Range

Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by : SCerva

Analyzed by : SCerva

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

```

=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 12/12/22 10:47
Project     : 380-31185                      Date Received: 12/14/22
Batch No.   : 22L220                          Date Extracted: 12/19/22 17:43
Sample ID   : 380-31185-4                    Date Analyzed: 12/19/22 17:43
Lab Samp ID : L220-04                          Dilution Factor: 1
Lab File ID : AL19013A                          Matrix: WATER
Ext Btch ID : 22VGH7L05                        % Moisture: NA
Calib. Ref.: AL19004A                          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	0.0353	0.0400	88	60-140

Notes:

Parameter H-C Range

Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by : SCerva

Analyzed by : SCerva

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

=====

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/12/22 10:24
Project	: 380-31185	Date Received:	12/14/22
Batch No.	: 22L220	Date Extracted:	12/19/22 18:20
Sample ID	: 380-31185-5	Date Analyzed:	12/19/22 18:20
Lab Samp ID:	L220-05	Dilution Factor:	1
Lab File ID:	AL19014A	Matrix:	WATER
Ext Btch ID:	22VGH7L05	% Moisture:	NA
Calib. Ref.:	AL19004A	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	0.0362	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

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

```

=====
Client      : EUROFINS EATON ANALYTICAL    Date Collected: 12/12/22 10:03
Project     : 380-31185                    Date Received: 12/14/22
Batch No.   : 22L220                       Date Extracted: 12/19/22 18:57
Sample ID   : 380-31185-6                 Date Analyzed: 12/19/22 18:57
Lab Samp ID: L220-06                       Dilution Factor: 1
Lab File ID: AL19015A                      Matrix: WATER
Ext Btch ID: 22VGH7L05                    % Moisture: NA
Calib. Ref.: AL19004A                     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	0.0357	0.0400	89	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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 12/19/22 12:45
Project     : 380-31185                      Date Received: 12/19/22
Batch No.   : 22L220                         Date Extracted: 12/19/22 12:45
Sample ID   : MBLK1W                         Date Analyzed: 12/19/22 12:45
Lab Samp ID : VGH7L05B                      Dilution Factor: 1
Lab File ID : AL19005A                      Matrix: WATER
Ext Btch ID : 22VGH7L05                     % Moisture: NA
Calib. Ref.: AL19004A                      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	0.0340	0.0400	85	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 : 380-31185
BATCH NO. : 22L220
METHOD : 5030B/8015B

MATRIX : WATER		% MOISTURE:NA
DILUTION FACTOR: 1	1	1
SAMPLE ID : MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID : VGH7L05B	VGH7L05L	VGH7L05C
LAB FILE ID : AL19005A	AL19006A	AL19007A
DATE PREPARED : 12/19/22 12:45	12/19/22 13:23	12/19/22 14:00
DATE ANALYZED : 12/19/22 12:45	12/19/22 13:23	12/19/22 14:00
PREP BATCH : 22VGH7L05	22VGH7L05	22VGH7L05
CALIBRATION REF: AL19004A	AL19004A	AL19004A

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	0.453	91	0.500	0.447	89	1	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0405	101	0.0400	0.0416	104	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 : 380-31185
BATCH NO. : 22L220
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 380-31185-1	380-31185-1MS	380-31185-1MSD
LAB SAMPLE ID	: L220-01	L220-01M	L220-01S
LAB FILE ID	: AL19008A	AL19009A	AL19010A
DATE PREPARED	: 12/19/22 14:37	12/19/22 15:14	12/19/22 15:51
DATE ANALYZED	: 12/19/22 14:37	12/19/22 15:14	12/19/22 15:51
PREP BATCH	: 22VGH7L05	22VGH7L05	22VGH7L05
CALIBRATION REF:	AL19004A	AL19004A	AL19004A

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	0.429	86	0.500	0.441	88	3	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0413	103	0.0400	0.0396	99	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-31185

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22L220



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-31185

SDG : 22L220

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of three(3) water samples were received on 12/14/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

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

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL035WB - 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. DSL035WL/DSL035WC 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 22L251-01M/22L251-01S. 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

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 EXTRACTION

SDG NO. : 22L220
Instrument ID : D5

Client : EUROFINS EATON ANALYTICAL
Project : 380-31185

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes

FN - Filename
% Moist - Percent Moisture

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	Date Collected: 12/12/22 10:47
Project : 380-31185	Date Received: 12/14/22
Batch No. : 22L220	Date Extracted: 12/21/22 15:15
Sample ID : 380-31185-1	Date Analyzed: 01/05/23 17:08
Lab Samp ID: 22L220-01	Dilution Factor: 1
Lab File ID: LA05016A	Matrix: WATER
Ext Btch ID: 22DSL035W	% Moisture: NA
Calib. Ref.: LA05003A	Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.028	0.014	
Motor Oil	ND	0.055	0.028	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.410	0.550	75	60-130
Hexacosane	0.139	0.138	101	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 : 910ml	Final Volume : 5ml
Prepared by : JMuert	Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 12/12/22 10:24
Project    : 380-31185                 Date Received: 12/14/22
Batch No.  : 22L220                    Date Extracted: 12/21/22 15:15
Sample ID  : 380-31185-2               Date Analyzed: 01/05/23 17:26
Lab Samp ID: 22L220-02                 Dilution Factor: 1
Lab File ID: LA05017A                  Matrix: WATER
Ext Btch ID: 22DSL035W                 % Moisture: NA
Calib. Ref.: LA05003A                  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	0.440	0.545	81	60-130	
Hexacosane	0.146	0.136	108	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   : JMuert          Analyzed by   : SDeeso

```

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	Date Collected: 12/12/22 10:03
Project : 380-31185	Date Received: 12/14/22
Batch No. : 22L220	Date Extracted: 12/21/22 15:15
Sample ID : 380-31185-3	Date Analyzed: 01/05/23 17:44
Lab Samp ID: 22L220-03	Dilution Factor: 1
Lab File ID: LA05018A	Matrix: WATER
Ext Btch ID: 22DSL035W	% Moisture: NA
Calib. Ref.: LA05003A	Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.027	0.013	
Motor Oil	ND	0.053	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.399	0.530	75	60-130
Hexacosane	0.118	0.132	89	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 940ml	Final Volume : 5ml
Prepared by : JMuert	Analyzed by : SDeeso

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/21/22 15:15
Project	: 380-31185	Date Received:	12/21/22
Batch No.	: 22L220	Date Extracted:	12/21/22 15:15
Sample ID	: MBLK1W	Date Analyzed:	01/05/23 14:59
Lab Samp ID:	DSL035WB	Dilution Factor:	1
Lab File ID:	LA05009A	Matrix:	WATER
Ext Btch ID:	22DSL035W	% Moisture:	NA
Calib. Ref.:	LA05003A	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	0.388	0.500	78	60-130
Hexacosane	0.131	0.125	105	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 : JMuert Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-31185
BATCH NO. : 22L220
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSL035WB	DSL035WL	DSL035WC
LAB FILE ID	: LA05009A	LA05010A	LA05011A
DATE PREPARED	: 12/21/22 15:15	12/21/22 15:15	12/21/22 15:15
DATE ANALYZED	: 01/05/23 14:59	01/05/23 15:17	01/05/23 15:36
PREP BATCH	: 22DSL035W	22DSL035W	22DSL035W
CALIBRATION REF:	LA05003A	LA05003A	LA05003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QLLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.54	102	2.50	2.34	94	8	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QLLimit (%)
Bromobenzene	0.500	0.468	94	0.500	0.464	93	60-130
Hexacosane	0.125	0.135	108	0.125	0.134	107	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 : 380-31552
BATCH NO. : 22L251
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 380-31552-1	380-31552-1MS	380-31552-1MSD
LAB SAMPLE ID	: 22L251-01	22L251-01M	22L251-01S
LAB FILE ID	: LA05023A	LA05024A	LA05025A
DATE PREPARED	: 12/21/22 15:15	12/21/22 15:15	12/21/22 15:15
DATE ANALYZED	: 01/05/23 19:17	01/05/23 19:35	01/05/23 19:53
PREP BATCH	: 22DSL035W	22DSL035W	22DSL035W
CALIBRATION REF:	LA05020A	LA05020A	LA05020A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.62	2.52	96	2.65	2.81	106	11	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.525	0.493	94	0.530	0.528	100	60-130
Hexacosane	0.131	0.131	100	0.132	0.149	112	60-130

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

December 30, 2022

Rosalynn Dang
 Eurofins Eaton Analytical
 750 Royal Oaks Drive
 Suite 100
 Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-31185-1
 Physis Project ID: 1407003-349

Dear Rosalynn,

Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 12/14/2022. A total of 3 samples were received for analysis in accordance with the attached chain of custody (COC). Per the COC, the samples were analyzed for:

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

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

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

Regards,


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

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-349

RED-HILL Project # 38001111 Job # 380-31185-1

Total Samples: 3

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
102873	AIEA GULCH WELLS PUMP	331-202-TP072 (380-31185-1)	12/12/202	10:47	Samplewater	Not Specified
102874	AIEA WELLS P2 (260)	331-004-WL103 (380-31185-2)	12/12/202	10:24	Samplewater	Not Specified
102875	HALAWA WELLS P1	331-023-WL065 (380-31185-3)	12/12/202	10:03	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.

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.

ANALYTICAL REPORT

TERRA AURA
ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 102873-R1 AIEA GULCH WELLS PUMP 2 331-20 Matrix: Samplewater											
Disalicylideneprapanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40056	15-Dec-22	25-Dec-22
Sample ID: 102874-R1 AIEA WELLS P2 (260) 331-004-WL10 Matrix: Samplewater											
Disalicylideneprapanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40056	15-Dec-22	25-Dec-22
Sample ID: 102875-R1 HALAWA WELLS P1 331-023-WL065 Matrix: Samplewater											
Disalicylideneprapanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40056	15-Dec-22	25-Dec-22



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 102873-R1	AIEA GULCH WELLS PUMP 2 331-20 Matrix: Samplewater						Sampled:	12-Dec-22 10:47	Received:	14-Dec-22	
(d10-Acenaphthene)	EPA 625.1	% Recovery	94	1			Total		O-40056	15-Dec-22	25-Dec-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	99	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Chrysene)	EPA 625.1	% Recovery	98	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Perylene)	EPA 625.1	% Recovery	80	1			Total		O-40056	15-Dec-22	25-Dec-22
(d8-Naphthalene)	EPA 625.1	% Recovery	88	1			Total		O-40056	15-Dec-22	25-Dec-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-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-40056	15-Dec-22	25-Dec-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 102874-R1	AIEA WELLS P2 (260) 331-004-WL10 Matrix: Samplewater						Sampled:	12-Dec-22 10:24	Received:	14-Dec-22	
(d10-Acenaphthene)	EPA 625.1	% Recovery	95	1			Total		O-40056	15-Dec-22	25-Dec-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	99	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Chrysene)	EPA 625.1	% Recovery	93	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Perylene)	EPA 625.1	% Recovery	78	1			Total		O-40056	15-Dec-22	25-Dec-22
(d8-Naphthalene)	EPA 625.1	% Recovery	90	1			Total		O-40056	15-Dec-22	25-Dec-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-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-40056	15-Dec-22	25-Dec-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 102875-R1 HALAWA WELLS P1 331-023-WL065 Matrix: Samplewater							Sampled: 12-Dec-22 10:03		Received: 14-Dec-22		
(d10-Acenaphthene)	EPA 625.1	% Recovery	92	1			Total		O-40056	15-Dec-22	25-Dec-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	98	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Chrysene)	EPA 625.1	% Recovery	96	1			Total		O-40056	15-Dec-22	25-Dec-22
(d12-Perylene)	EPA 625.1	% Recovery	79	1			Total		O-40056	15-Dec-22	25-Dec-22
(d8-Naphthalene)	EPA 625.1	% Recovery	85	1			Total		O-40056	15-Dec-22	25-Dec-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-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-40056	15-Dec-22	25-Dec-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40056	15-Dec-22	25-Dec-22

QUALITY CONTROL REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

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: 102872-B1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40056			Prepared: 15-Dec-22		Analyzed: 25-Dec-22			
Disalicylideneprapanediamin	Total	ND	1	0.05	0.1	µg/L							
Sample ID: 102872-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40056			Prepared: 15-Dec-22		Analyzed: 25-Dec-22			
Disalicylideneprapanediamin	Total	42.3	1	0.05	0.1	µg/L	50	0	85	50 - 150%	PASS		
Sample ID: 102872-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40056			Prepared: 15-Dec-22		Analyzed: 25-Dec-22			
Disalicylideneprapanediamin	Total	47.3	1	0.05	0.1	µg/L	50	0	95	50 - 150%	PASS	11	30 PASS

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: 102872-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
		Method: EPA 625.1				Batch ID: O-40056	Prepared: 15-Dec-22		Analyzed: 25-Dec-22		
(d10-Acenaphthene)	Total	96	1			% Recovery	100	96	27 - 133%	PASS	
(d10-Phenanthrene)	Total	99	1			% Recovery	100	99	43 - 129%	PASS	
(d12-Chrysene)	Total	95	1			% Recovery	100	95	52 - 144%	PASS	
(d12-Perylene)	Total	80	1			% Recovery	100	80	36 - 161%	PASS	
(d8-Naphthalene)	Total	93	1			% Recovery	100	93	25 - 125%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L					
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L					
Anthracene	Total	ND	1	0.001	0.005	µg/L					
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L					
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L					
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Biphenyl	Total	ND	1	0.001	0.005	µg/L					
Chrysene	Total	ND	1	0.001	0.005	µg/L					
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L					
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L					
Dibenzothiophene	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	
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: 102872-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-40056			Prepared: 15-Dec-22		Analyzed: 25-Dec-22					
(d10-Acenaphthene)	Total	88	1			% Recovery	100	0	88	27 - 133%	PASS	
(d10-Phenanthrene)	Total	92	1			% Recovery	100	0	92	43 - 129%	PASS	
(d12-Chrysene)	Total	79	1			% Recovery	100	0	79	52 - 144%	PASS	
(d12-Perylene)	Total	76	1			% Recovery	100	0	76	36 - 161%	PASS	
(d8-Naphthalene)	Total	83	1			% Recovery	100	0	83	25 - 125%	PASS	
1-Methylnaphthalene	Total	0.449	1	0.001	0.005	µg/L	0.5	0	90	31 - 128%	PASS	
1-Methylphenanthrene	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	66 - 127%	PASS	
2,3,5-Trimethylnaphthalene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	55 - 122%	PASS	
2,6-Dimethylnaphthalene	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	48 - 120%	PASS	
2-Methylnaphthalene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	47 - 130%	PASS	
Acenaphthene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	53 - 131%	PASS	
Acenaphthylene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	43 - 140%	PASS	
Anthracene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	58 - 135%	PASS	
Benz[a]anthracene	Total	0.363	1	0.001	0.005	µg/L	0.5	0	73	55 - 145%	PASS	
Benzo[a]pyrene	Total	0.388	1	0.001	0.005	µg/L	0.5	0	78	51 - 143%	PASS	
Benzo[b]fluoranthene	Total	0.36	1	0.001	0.005	µg/L	0.5	0	72	46 - 165%	PASS	
Benzo[e]pyrene	Total	0.397	1	0.001	0.005	µg/L	0.5	0	79	42 - 152%	PASS	
Benzo[g,h,i]perylene	Total	0.399	1	0.001	0.005	µg/L	0.5	0	80	63 - 133%	PASS	
Benzo[k]fluoranthene	Total	0.403	1	0.001	0.005	µg/L	0.5	0	81	56 - 145%	PASS	
Biphenyl	Total	0.457	1	0.001	0.005	µg/L	0.5	0	91	56 - 119%	PASS	
Chrysene	Total	0.377	1	0.001	0.005	µg/L	0.5	0	75	56 - 141%	PASS	
Dibenz[a,h]anthracene	Total	0.315	1	0.001	0.005	µg/L	0.5	0	63	55 - 150%	PASS	
Dibenzo[a,l]pyrene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	50 - 150%	PASS	
Dibenzothiophene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	46 - 126%	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	
Fluoranthene	Total	0.459	1	0.001	0.005	µg/L	0.5	0	92	60 - 146%	PASS		
Fluorene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	0.294	1	0.001	0.005	µg/L	0.5	0	59	50 - 151%	PASS		
Naphthalene	Total	0.436	1	0.001	0.005	µg/L	0.5	0	87	41 - 126%	PASS		
Perylene	Total	0.377	1	0.001	0.005	µg/L	0.5	0	75	48 - 141%	PASS		
Phenanthrene	Total	0.472	1	0.001	0.005	µg/L	0.5	0	94	67 - 127%	PASS		
Pyrene	Total	0.456	1	0.001	0.005	µg/L	0.5	0	91	54 - 156%	PASS		



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: 102872-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:			
		Method: EPA 625.1			Batch ID: O-40056			Prepared: 15-Dec-22			Analyzed: 25-Dec-22			
(d10-Acenaphthene)	Total	95	1			% Recovery	100	0	95	27 - 133%	PASS	8	30	PASS
(d10-Phenanthrene)	Total	98	1			% Recovery	100	0	98	43 - 129%	PASS	6	30	PASS
(d12-Chrysene)	Total	89	1			% Recovery	100	0	89	52 - 144%	PASS	12	30	PASS
(d12-Perylene)	Total	84	1			% Recovery	100	0	84	36 - 161%	PASS	10	30	PASS
(d8-Naphthalene)	Total	91	1			% Recovery	100	0	91	25 - 125%	PASS	9	30	PASS
1-Methylnaphthalene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	31 - 128%	PASS	2	30	PASS
1-Methylphenanthrene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	66 - 127%	PASS	0	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	55 - 122%	PASS	1	30	PASS
2,6-Dimethylnaphthalene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	48 - 120%	PASS	2	30	PASS
2-Methylnaphthalene	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	47 - 130%	PASS	4	30	PASS
Acenaphthene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	53 - 131%	PASS	2	30	PASS
Acenaphthylene	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	43 - 140%	PASS	2	30	PASS
Anthracene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	58 - 135%	PASS	2	30	PASS
Benz[a]anthracene	Total	0.388	1	0.001	0.005	µg/L	0.5	0	78	55 - 145%	PASS	7	30	PASS
Benzo[a]pyrene	Total	0.417	1	0.001	0.005	µg/L	0.5	0	83	51 - 143%	PASS	6	30	PASS
Benzo[b]fluoranthene	Total	0.381	1	0.001	0.005	µg/L	0.5	0	76	46 - 165%	PASS	5	30	PASS
Benzo[e]pyrene	Total	0.405	1	0.001	0.005	µg/L	0.5	0	81	42 - 152%	PASS	2	30	PASS
Benzo[g,h,i]perylene	Total	0.405	1	0.001	0.005	µg/L	0.5	0	81	63 - 133%	PASS	1	30	PASS
Benzo[k]fluoranthene	Total	0.41	1	0.001	0.005	µg/L	0.5	0	82	56 - 145%	PASS	1	30	PASS
Biphenyl	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	56 - 119%	PASS	2	30	PASS
Chrysene	Total	0.411	1	0.001	0.005	µg/L	0.5	0	82	56 - 141%	PASS	9	30	PASS
Dibenz[a,h]anthracene	Total	0.334	1	0.001	0.005	µg/L	0.5	0	67	55 - 150%	PASS	6	30	PASS
Dibenzo[a,l]pyrene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	50 - 150%	PASS	2	30	PASS
Dibenzothiophene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	46 - 126%	PASS	1	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		
Fluoranthene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	60 - 146%	PASS	1	30	PASS
Fluorene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	58 - 131%	PASS	0	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.312	1	0.001	0.005	µg/L	0.5	0	62	50 - 151%	PASS	5	30	PASS
Naphthalene	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	41 - 126%	PASS	6	30	PASS
Perylene	Total	0.382	1	0.001	0.005	µg/L	0.5	0	76	48 - 141%	PASS	1	30	PASS
Phenanthrene	Total	0.483	1	0.001	0.005	µg/L	0.5	0	97	67 - 127%	PASS	3	30	PASS
Pyrene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	54 - 156%	PASS	2	30	PASS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

PHYSIS

TENTATIVELY IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: 102873

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
36.2828	5.8434	1111	Anthracene-D10-	1719-06-8	96
10.5634	1.3298	253	Hydroperoxide, 1-ethylbutyl	24254-56-6	93
32.9805	1.3296	253	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98
10.9387	0.7874	150	Cyclopentanol, 1-methyl-	1462-03-9	89
10.6887	0.7566	144	Hydroperoxide, 1-methylpentyl	24254-55-5	91

Concentration estimated using the response for Anthracene-d10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Sample ID: 102874

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
36.2812	5.0904	1111	Anthracene-D10-	1719-06-8	93
32.9790	1.7529	383	Benzoic acid, 2-ethylhexyl ester	5444-75-7	97
10.5594	0.6964	152	Hydroperoxide, 1-ethylbutyl	24254-56-6	91
11.4004	0.6946	152	Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	98
10.6822	0.5026	110	Hydroperoxide, 1-methylpentyl	24254-55-5	91

Concentration estimated using the response for Anthracene-d10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Sample ID: 102875

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
36.2846	5.2029	1111	Anthracene-D10-	1719-06-8	90
32.9839	1.6282	348	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98
10.5620	0.9942	212	Hydroperoxide, 1-ethylbutyl	24254-56-6	91
10.6870	0.5534	118	Hydroperoxide, 1-methylpentyl	24254-55-5	92

Concentration estimated using the response for Anthracene-d10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Sample ID: Lab Blank B1_40056

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
36.2835	3.5058	1111	Anthracene-D10-	1517-22-2	95
10.6879	0.4076	129	Hydroperoxide, 1-methylpentyl	24254-55-5	94

Concentration estimated using the response for Anthracene-d10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Project Iteration ID: 1407003-349
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111 Job # 380-31185-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

- Initials Received By: BTH
- Date Received: 12/14/22
- Time Received: 11:48
- Client Name: Eurofins
- Courier Information: (Please circle)
 - Client
 - FedEx
 - UPS
 - GSO/GLS
 - Area Fast
 - Ontrac
 - DRS
 - PAMS
 - PHYSIS Driver:
 - i. Start Time: _____
 - ii. End Time: _____
 - iii. Total Mileage: _____
 - iv. Number of Pickups: _____
- Container Information: (Please put the # of containers or circle none)
 - 1 Cooler
 - Styrofoam Cooler
 - Boxes
 - None
 - Carboy(s)
 - Carboy Trash Can(s)
 - Carboy Cap(s)
 - Other _____
- What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
- Randomly Selected Samples Temperature (°C): 2.6 Used I/R Thermometer # RZ

Inspection Info

- Initials Inspected By: RCH

Sample Integrity Upon Receipt:

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

Notes:

Eurofins labels did not match the original bottles.
 It looks like samples 1 & 3 are swapped.

Rich Hanken

From: Misty Mercier <mistymercier@physislabs.com> on behalf of Misty Mercier
Sent: Wednesday, December 14, 2022 6:20 PM
To: Rich Hanken
Subject: FW: label issue?

From: [Rachelle Arada](#)
Sent: Wednesday, December 14, 2022 7:19 PM
To: [Misty Mercier](#)
Subject: RE: label issue?

Hi Misty,

Here's the answer:

I would trust the large label with the blue ink. That's the label that our sampler filled out. As for the smaller labels above and on the side, I don't know where those came from.

I can barely make out the writing in the picture but the original label on the bottle that the sampler filled out and the label above that seems to match. I think the side labels were placed on the wrong bottle.

Let me know if this answers your question.

Sincerely,

Rachelle Arada
Client Services Manager



Eurofins Eaton Analytical
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016
Office: +1 626 386 1106

Email: Rachelle.Arada@ET.EurofinsUS.com
Website: www.EurofinsUS.com/Eaton

Follow Us! [Facebook](#) | [LinkedIn](#)

Please note that our standard [Terms and Conditions](#) apply to the prices quoted.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer. Email transmission cannot be guaranteed to be secure or error free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete. The sender therefore is in no way liable for any errors or omissions in the content of this message which may arise as a result of email transmission. If verification is required, please request a hard copy. We take reasonable precautions to ensure our emails are free from viruses. You need, however, to verify that this email and any attachments are free of viruses, as we can take no responsibility for any computer viruses, which might be transferred by way of this email. We may monitor all email communication through our networks. If you contact us by email, we may store your name and address to facilitate communication.

From: Rachelle Arada
Sent: Wednesday, December 14, 2022 5:19 PM
To: Misty Mercier <mistymercier@physislabs.com>
Subject: RE: label issue?

Hi Misty,

Let me confirm with the sampler, please standby.

Sincerely,

Rachelle Arada
Client Services Manager



Eurofins Eaton Analytical
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016
Office: +1 626 386 1106

Email: Rachelle.Arada@ET.EurofinsUS.com
Website: www.EurofinsUS.com/Eaton

Follow Us! [Facebook](#) | [LinkedIn](#)

Please note that our standard [Terms and Conditions](#) apply to the prices quoted.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer. Email transmission cannot be guaranteed to be secure or error free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete. The sender therefore is in no way liable for any errors or omissions in the content of this message which may arise as a result of email transmission. If verification is required, please request a hard copy. We take reasonable precautions to ensure our emails are free from viruses. You need, however, to verify that this email and any attachments are free of viruses, as we can take no responsibility for any computer viruses, which might be transferred by way of this email. We may monitor all email communication through our networks. If you contact us by email, we may store your name and address to facilitate communication.

From: Misty Mercier <mistymercier@physislabs.com>
Sent: Wednesday, December 14, 2022 4:24 PM
To: Rachelle Arada <Rachelle.Arada@et.eurofinsus.com>
Subject: label issue?

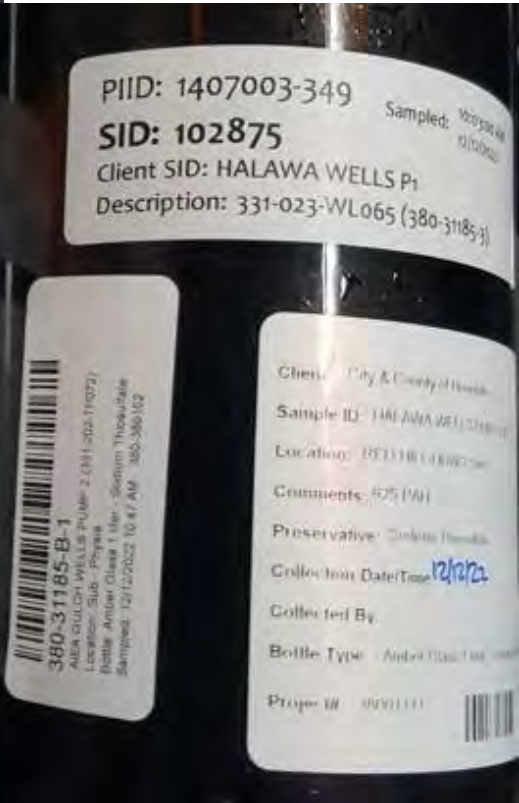
EXTERNAL EMAIL*

Hi Rachelle,

Looks like there's a discrepancy with these small vs. large labels and maybe the small labels were switched? The large label matched the time and sample ID.
Should we follow the large labels or the small labels?



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Monrovia, CA (Suite 100)

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

Chain of Custody Record



Client Information		Sampler: BAILEY	Lab PM: Arada, Rachele	Carrier Tracking No(s)	COC No:									
Client Contact: Dr. Ron Fenstemacher		Phone: 808-748-5840	E-Mail: Rachele.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1									
Company: City and County of Honolulu		PWSID:	Analysis Requested											
Address: 630 South Beretania St. Chemistry Lab		Due Date Requested:	<table border="1"> <tr> <td rowspan="6">Field Filtered Sample (Yes or No)</td> <td rowspan="6">Perform MS/MSD (Yes or No)</td> <td>SUBCONTRACT - 625 PAH Physis LL (EAL) + TICS</td> <td rowspan="6">Total Number of containers</td> </tr> <tr> <td>SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)</td> </tr> <tr> <td>SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil</td> </tr> <tr> <td>525.2_PREC - (MOD) 525 plus Plus TICS</td> </tr> <tr> <td>SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)</td> </tr> <tr> <td></td> </tr> </table>			Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICS	Total Number of containers	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525 plus Plus TICS	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICS						Total Number of containers						
		SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)												
		SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil												
		525.2_PREC - (MOD) 525 plus Plus TICS												
		SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)												
City: Honolulu		TAT Requested (days): Standard												
State, Zip: Hawaii 96843		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No												
Phone: 808-748-5841		PO #: C20525101 exp 05312023												
Email: RFENSTEMACHER@hbws.org		WO #:												
Project Name: RED HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)											
Site: Hawaii		SSOW#:												
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICS	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525 plus Plus TICS	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Other:	
													Special Instructions/Note:	
Aiea Gulch Wells Pump 1													(751A) 4.5/4.3	
Aiea Gulch Wells Pump 2		12-Dec-2022	1047	G	W			X	X	X	X	X	gel-frozen	
Aiea Wells Pump 1													Fed Ex: 770753574130	
Aiea Wells Pump 2		12-Dec-2022	1024	G	W			X	X	X	X	X		
Halawa Wells Pump 1		12-Dec-2022	1003	G	W			X	X	X	X	X		
Halawa Wells Pump 2														
Moanalua Wells														
TB: AIEA GULCH WELLS PUMP 1														
TB: AIEA GULCH WELLS PUMP 2		12-Dec-2022	1047		W							X		
TB: Aiea Wells Pump 2		12-Dec-2022	1024		W							X		
TB: Halawa Wells Pump 1		12-Dec-2022	1003		W							X		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:								
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment: Fed Ex: 770753625009										
Relinquished by: BAILEY		Date/Time: Dec 12, 2022 1400	Company: HBWS	Received by: Mark Urutia		Date/Time: 12/13/22 945	Company: EEA							
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:							
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: (751A) 3.8/3.6, gel-frozen										



Shipping Order Form - Bottle Order



Environmental Testing



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

Shipping Order ID: 9764

Ship Via: FedEx

Due On: 11/21/2022 11:59:00PM

When To Ship: 11/21/2022

Due After: 11/21/2022 12:00:00 AM

Ship To Information

Project Manager: Rachelle Arada
Tel: (626) 386-1106 Em: Rachelle.Arada@et.eurofinsus.com
Company Name: City & County of Honolulu
Attention: Erwin Kawata
Address 1: 630 South Beretania Street
Address 2: Public Service Bldg. Room 308
Address 3:
City: Honolulu
State: HI
Zip: 96843
Phone #: +1-808-748-5841
Project Ref: RED-HILL
Event Desc: RUSH Weekly Red Hill

Notes to Bottle/Shipping Department

Pack with Gel Ice.

Please pack as one cooler per site.

Label the cooler under the left hand handle with the ID of the samples that are in the cooler (if more than 1 cooler is used per 1 sample ID label cooler with "sample ID x of y").

Pack by sample ID on the bottle labels (with one full set of tests per sample ID).

Send only medium to large coolers.

Shipping Method: Individual sample per cooler (affixed TALS labels)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Ready to Fill | <input type="checkbox"/> Return Shipment Labels |
| <input checked="" type="checkbox"/> Preprinted COC | <input type="checkbox"/> Prepaid Return |
| <input type="checkbox"/> Number of COC Copies | Monrovia, CA (Suite 100) |
| <input type="checkbox"/> Seals on Bottle | <input type="checkbox"/> Short Hold Times |
| <input type="checkbox"/> Seals on Coolers | <input checked="" type="checkbox"/> Temperature Control |
| <input type="checkbox"/> Priority | <input type="checkbox"/> Rush |

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

Bottle Order Information

Bottle Order: RUSH RED-HILL WEEKLY
 Bottle Order #: 2757
 Request From Client: 7/20/2022
 Date Order Posted: 7/20/2022 11:12:54AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
 Deliver By Date: 11/21/2022 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	2	12	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal	625 PAH	
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		
6	2	12	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - (MOD) 525plus Plus TICs	Water	Normal		
6	2	12	VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Trip Blank		

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	12
Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	12
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	12
VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	12
Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	24
Total Bottles:		<u>72</u>

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

Notes to Field Staff:



Scan QR code for field sampler instructions

SAMPLER FOLLOW 2 STAGE FIELD PRESERVATION FOR 8015 and 525.2

Health and Safety Notes:

Preservative	Comment
Sodium Sulfite w/HCl	CAUTION! CONTAINS SODIUM SULFITE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate/Hydrochloric Acid	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. Contains 13.3% Monochloroacetic Acid. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. CAUTION! CONTAINS 1:1 HYDROCHLORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #
						Seal #
						Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal #
						Seal #
						Seal #

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: 380-31185-1

Login Number: 31185
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	

