eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/11/2023 9:08:03 PM

JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-48562-1

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

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

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

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

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

Authorization

Rachelle Arada

Generated
7/11/2023 9:08:03 PM

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

Table of Contents

Definitions/Glossary

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

Job ID: 380-48562-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
N	Presumptive evidence of material.
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: 380-48562-1

Job ID: 380-48562-1

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative
380-48562-1

Comments
No additional comments.

Receipt
The samples were received on 5/24/2023 10:18 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 1.6º C.

GC/MS Semi VOA
Method 525.2: The matrix spike (MS) recovery for preparation batch 380-41917 and analytical batch 380-42146 was below control limits for: Anthracene. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries are within acceptance limits.

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/JP5/JP8: These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

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: 380-48562-1

Client Sample ID: MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-48562-1

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-48562-2

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-48562-3

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
PWSID Number: HI0000331

Lab Sample ID: 380-48562-4

No Detections.

Client Sample ID: TB: MOANALUA WELLS

Lab Sample ID: 380-48562-5

No Detections.

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-48562-6

No Detections.

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

Lab Sample ID: 380-48562-7

No Detections.

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-8

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-48562-1

Client Sample ID: MOANALUA WELLS
Date Collected: 05/22/23 10:02
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-1
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2,6-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
2-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
4,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
4,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
4,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Acenaphthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Acenaphthylene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Acetochlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Alachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
alpha-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
alpha-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Anthracene	<0.019	F1	0.019		ug/L		05/27/23 15:01	05/31/23 12:13	1
Atrazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Benz(a)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Benzo[a]pyrene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:13	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:13	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:13	1
beta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:13	1
Bromacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Butachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Butylbenzylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:13	1
Chlorobenzilate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Chloroneb	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Chlorpyrifos	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Chrysene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:13	1
delta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:13	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Dieldrin	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:13	1
Diethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:13	1
Dimethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:13	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		05/27/23 15:01	05/31/23 12:13	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Endosulfan I (Alpha)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Endosulfan sulfate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Endrin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Endrin aldehyde	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
EPTC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Fluoranthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1

Client Sample ID: MOANALUA WELLS

Date Collected: 05/22/23 10:02
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-1

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
gamma-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Heptachlor	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:13	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Hexachlorobenzene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Isophorone	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:13	1
Lindane	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:13	1
Malathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Methoxychlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Metolachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Molinate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Naphthalene	<0.29		0.29		ug/L		05/27/23 15:01	05/31/23 12:13	1
Parathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Phenanthrene	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:13	1
Propachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Simazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Terbacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Terbuthylazine	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1
Thiobencarb	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:13	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:13	1
trans-Nonachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:13	1
Trifluralin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*05/27/23 15:01*	*05/31/23 12:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*102*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:13*	*1*
Perylene-d12	*99*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:13*	*1*
Triphenylphosphate	*102*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:13*	*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		05/25/23 00:00	06/08/23 18:34	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Acenaphthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Acenaphthylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-48562-1
Date Collected: 05/22/23 10:02
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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[k]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Biphenyl	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Chrysene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Dibenzothiophene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		05/25/23 00:00	06/08/23 18:34	1
Fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Fluorene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Naphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Phenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1
Pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*86*		*27 - 133*	*05/25/23 00:00*	*06/08/23 18:34*	*1*
(d10-Phenanthrene)	*88*		*43 - 129*	*05/25/23 00:00*	*06/08/23 18:34*	*1*
(d12-Chrysene)	*87*		*52 - 144*	*05/25/23 00:00*	*06/08/23 18:34*	*1*
(d12-Perylene)	*83*		*36 - 161*	*05/25/23 00:00*	*06/08/23 18:34*	*1*
(d8-Naphthalene)	*78*		*25 - 125*	*05/25/23 00:00*	*06/08/23 18:34*	*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			05/25/23 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*81*		*60 - 140*		*05/25/23 18:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			06/05/23 17:23	1
JP5	ND	U	0.053		mg/L			06/05/23 17:23	1
JP8	ND	U	0.053		mg/L			06/05/23 17:23	1
MOTOR OIL	ND	U	0.053		mg/L			06/05/23 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*79*		*60 - 130*		*06/05/23 17:23*	*1*
HEXACOSANE	*98*		*60 - 130*		*06/05/23 17:23*	*1*

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-48562-2
Date Collected: 05/22/23 11:32
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
2,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
2,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
2,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1

Client Sample ID: AIEA GULCH WELLS PUMP 2
Date Collected: 05/22/23 11:32
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-2
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
2-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
4,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
4,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
4,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Acenaphthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Acenaphthylene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Acetochlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Alachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
alpha-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
alpha-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Anthracene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:32	1
Atrazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Benz(a)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Benzo[a]pyrene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:32	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:32	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:32	1
beta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:32	1
Bromacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Butachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Butylbenzylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:32	1
Chlorobenzilate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Chloroneb	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Chlorpyrifos	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Chrysene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:32	1
delta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:32	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Dieldrin	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:32	1
Diethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:32	1
Dimethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:32	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		05/27/23 15:01	05/31/23 12:32	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Endosulfan I (Alpha)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Endosulfan sulfate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Endrin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Endrin aldehyde	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
EPTC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Fluoranthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Fluorene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
gamma-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Heptachlor	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:32	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Hexachlorobenzene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1

Client Sample ID: AIEA GULCH WELLS PUMP 2
Date Collected: 05/22/23 11:32
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-2
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Isophorone	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 12:32	1
Lindane	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:32	1
Malathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Methoxychlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Metolachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Molinate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Naphthalene	<0.29		0.29		ug/L		05/27/23 15:01	05/31/23 12:32	1
Parathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Phenanthrene	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:32	1
Propachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Simazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Terbacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Terbuthylazine	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1
Thiobencarb	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:32	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:32	1
trans-Nonachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 12:32	1
Trifluralin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*05/27/23 15:01*	*05/31/23 12:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*103*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:32*	*1*
Perylene-d12	*90*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:32*	*1*
Triphenylphosphate	*104*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:32*	*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		05/25/23 00:00	06/08/23 20:20	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Acenaphthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Acenaphthylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Biphenyl	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Chrysene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-48562-2
Date Collected: 05/22/23 11:32
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzothiophene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		05/25/23 00:00	06/08/23 20:20	1
Fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Fluorene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Naphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Phenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1
Pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*89*		*27 - 133*	*05/25/23 00:00*	*06/08/23 20:20*	*1*
(d10-Phenanthrene)	*90*		*43 - 129*	*05/25/23 00:00*	*06/08/23 20:20*	*1*
(d12-Chrysene)	*91*		*52 - 144*	*05/25/23 00:00*	*06/08/23 20:20*	*1*
(d12-Perylene)	*87*		*36 - 161*	*05/25/23 00:00*	*06/08/23 20:20*	*1*
(d8-Naphthalene)	*80*		*25 - 125*	*05/25/23 00:00*	*06/08/23 20:20*	*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			05/25/23 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*80*		*60 - 140*		*05/25/23 20:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			06/05/23 17:42	1
JP5	ND	U	0.055		mg/L			06/05/23 17:42	1
JP8	ND	U	0.055		mg/L			06/05/23 17:42	1
MOTOR OIL	ND	U	0.055		mg/L			06/05/23 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*78*		*60 - 130*		*06/05/23 17:42*	*1*
HEXACOSANE	*101*		*60 - 130*		*06/05/23 17:42*	*1*

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

Lab Sample ID: 380-48562-3
Date Collected: 05/22/23 11:05
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2,6-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
2-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
4,4'-DDD	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
4,4'-DDE	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
4,4'-DDT	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1

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

Job ID: 380-48562-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Date Collected: 05/22/23 11:05
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-3
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Acenaphthylene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Acetochlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Alachlor	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
alpha-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
alpha-Chlordane	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Anthracene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:52	1
Atrazine	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Benz(a)anthracene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Benzo[a]pyrene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:52	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:52	1
Benzo[g,h,i]perylene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:52	1
beta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:52	1
Bromacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Butachlor	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Butylbenzylphthalate	<0.48		0.48		ug/L		05/27/23 15:01	05/31/23 12:52	1
Chlorobenzilate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Chloroneb	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Chlorpyrifos	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Chrysene	<0.019		0.019		ug/L		05/27/23 15:01	05/31/23 12:52	1
delta-BHC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		05/27/23 15:01	05/31/23 12:52	1
Dibenz(a,h)anthracene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Diclorvos (DDVP)	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Dieldrin	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:52	1
Diethylphthalate	<0.48		0.48		ug/L		05/27/23 15:01	05/31/23 12:52	1
Dimethylphthalate	<0.48		0.48		ug/L		05/27/23 15:01	05/31/23 12:52	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		05/27/23 15:01	05/31/23 12:52	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Endosulfan I (Alpha)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Endosulfan sulfate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Endrin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Endrin aldehyde	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
EPTC	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Fluoranthene	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Fluorene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
gamma-Chlordane	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Heptachlor	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:52	1
Heptachlor epoxide (isomer B)	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Hexachlorobenzene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Hexachlorocyclopentadiene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Isophorone	<0.48		0.48		ug/L		05/27/23 15:01	05/31/23 12:52	1
Lindane	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:52	1
Malathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1

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

Date Collected: 05/22/23 11:05
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-3

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Metolachlor	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Molinate	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Naphthalene	<0.29		0.29		ug/L		05/27/23 15:01	05/31/23 12:52	1
Parathion	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Phenanthrene	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 12:52	1
Propachlor	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Pyrene	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Simazine	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Terbacil	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Terbuthylazine	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1
Thiobencarb	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:52	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		05/27/23 15:01	05/31/23 12:52	1
trans-Nonachlor	<0.048		0.048		ug/L		05/27/23 15:01	05/31/23 12:52	1
Trifluralin	<0.097		0.097		ug/L		05/27/23 15:01	05/31/23 12:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*05/27/23 15:01*	*05/31/23 12:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*103*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:52*	*1*
Perylene-d12	*92*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:52*	*1*
Triphenylphosphate	*98*		*70 - 130*	*05/27/23 15:01*	*05/31/23 12:52*	*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		05/25/23 00:00	06/08/23 22:07	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Acenaphthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Acenaphthylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Biphenyl	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Chrysene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Dibenzothiophene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		05/25/23 00:00	06/08/23 22:07	1
Fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Fluorene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1

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

Lab Sample ID: 380-48562-3
Date Collected: 05/22/23 11:05
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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
Naphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Phenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1
Pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*91*		*27 - 133*	*05/25/23 00:00*	*06/08/23 22:07*	*1*
(d10-Phenanthrene)	*91*		*43 - 129*	*05/25/23 00:00*	*06/08/23 22:07*	*1*
(d12-Chrysene)	*91*		*52 - 144*	*05/25/23 00:00*	*06/08/23 22:07*	*1*
(d12-Perylene)	*87*		*36 - 161*	*05/25/23 00:00*	*06/08/23 22:07*	*1*
(d8-Naphthalene)	*81*		*25 - 125*	*05/25/23 00:00*	*06/08/23 22:07*	*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			05/25/23 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*82*		*60 - 140*		*05/25/23 21:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			06/05/23 18:01	1
JP5	ND	U	0.053		mg/L			06/05/23 18:01	1
JP8	ND	U	0.053		mg/L			06/05/23 18:01	1
MOTOR OIL	ND	U	0.053		mg/L			06/05/23 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*81*		*60 - 130*		*06/05/23 18:01*	*1*
HEXACOSANE	*104*		*60 - 130*		*06/05/23 18:01*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-4
Date Collected: 05/22/23 10:29
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2,4'-DDD	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2,4'-DDE	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2,4'-DDT	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2,6-Dinitrotoluene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
2-Methylnaphthalene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
4,4'-DDD	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
4,4'-DDE	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
4,4'-DDT	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Acenaphthene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Acenaphthylene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Acetochlor	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Alachlor	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
alpha-BHC	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1

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

Job ID: 380-48562-1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 05/22/23 10:29
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-4
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Anthracene	<0.019		0.019		ug/L		05/27/23 16:51	05/31/23 13:12	1
Atrazine	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Benz(a)anthracene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Benzo[a]pyrene	<0.019		0.019		ug/L		05/27/23 16:51	05/31/23 13:12	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		05/27/23 16:51	05/31/23 13:12	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		05/27/23 16:51	05/31/23 13:12	1
beta-BHC	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		05/27/23 16:51	05/31/23 13:12	1
Bromacil	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Butachlor	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Butylbenzylphthalate	<0.49		0.49		ug/L		05/27/23 16:51	05/31/23 13:12	1
Chlorobenzilate	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Chloroneb	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Chlorpyrifos	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Chrysene	<0.019		0.019		ug/L		05/27/23 16:51	05/31/23 13:12	1
delta-BHC	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		05/27/23 16:51	05/31/23 13:12	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Dieldrin	<0.19		0.19		ug/L		05/27/23 16:51	05/31/23 13:12	1
Diethylphthalate	<0.49		0.49		ug/L		05/27/23 16:51	05/31/23 13:12	1
Dimethylphthalate	<0.49		0.49		ug/L		05/27/23 16:51	05/31/23 13:12	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		05/27/23 16:51	05/31/23 13:12	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Endosulfan I (Alpha)	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Endosulfan sulfate	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Endrin	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Endrin aldehyde	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
EPTC	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Fluoranthene	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Fluorene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
gamma-Chlordane	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Heptachlor	<0.039		0.039		ug/L		05/27/23 16:51	05/31/23 13:12	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Hexachlorobenzene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Isophorone	<0.49		0.49		ug/L		05/27/23 16:51	05/31/23 13:12	1
Lindane	<0.039		0.039		ug/L		05/27/23 16:51	05/31/23 13:12	1
Malathion	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Methoxychlor	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Metolachlor	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Molinate	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Naphthalene	<0.29		0.29		ug/L		05/27/23 16:51	05/31/23 13:12	1
Parathion	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 05/22/23 10:29
Date Received: 05/24/23 10:18

Lab Sample ID: 380-48562-4
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Phenanthrene	<0.039		0.039		ug/L		05/27/23 16:51	05/31/23 13:12	1
Propachlor	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Pyrene	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Simazine	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Terbacil	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Terbuthylazine	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1
Thiobencarb	<0.19		0.19		ug/L		05/27/23 16:51	05/31/23 13:12	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		05/27/23 16:51	05/31/23 13:12	1
trans-Nonachlor	<0.049		0.049		ug/L		05/27/23 16:51	05/31/23 13:12	1
Trifluralin	<0.097		0.097		ug/L		05/27/23 16:51	05/31/23 13:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*05/27/23 16:51*	*05/31/23 13:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*104*		*70 - 130*	*05/27/23 16:51*	*05/31/23 13:12*	*1*
Perylene-d12	*95*		*70 - 130*	*05/27/23 16:51*	*05/31/23 13:12*	*1*
Triphenylphosphate	*98*		*70 - 130*	*05/27/23 16:51*	*05/31/23 13:12*	*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		05/25/23 00:00	06/08/23 23:53	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Acenaphthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Acenaphthylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Biphenyl	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Chrysene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Dibenzothiophene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		05/25/23 00:00	06/08/23 23:53	1
Fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Fluorene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Naphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Phenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1
Pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 23:53	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-4
Date Collected: 05/22/23 10:29
Matrix: Drinking Water
Date Received: 05/24/23 10:18
PWSID Number: HI0000331

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*89*		*27 - 133*	*05/25/23 00:00*	*06/08/23 23:53*	*1*
(d10-Phenanthrene)	*91*		*43 - 129*	*05/25/23 00:00*	*06/08/23 23:53*	*1*
(d12-Chrysene)	*91*		*52 - 144*	*05/25/23 00:00*	*06/08/23 23:53*	*1*
(d12-Perylene)	*88*		*36 - 161*	*05/25/23 00:00*	*06/08/23 23:53*	*1*
(d8-Naphthalene)	*82*		*25 - 125*	*05/25/23 00:00*	*06/08/23 23:53*	*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			05/25/23 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*81*		*60 - 140*		*05/25/23 21:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.028		mg/L			06/05/23 18:19	1
JP5	ND	U	0.056		mg/L			06/05/23 18:19	1
JP8	ND	U	0.056		mg/L			06/05/23 18:19	1
MOTOR OIL	ND	U	0.056		mg/L			06/05/23 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*82*		*60 - 130*		*06/05/23 18:19*	*1*
HEXACOSANE	*110*		*60 - 130*		*06/05/23 18:19*	*1*

Client Sample ID: TB: MOANALUA WELLS

Lab Sample ID: 380-48562-5
Date Collected: 05/22/23 10:02
Matrix: Water
Date Received: 05/24/23 10:18

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			05/25/23 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*78*		*60 - 140*		*05/25/23 22:14*	*1*

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-48562-6
Date Collected: 05/22/23 11:32
Matrix: Water
Date Received: 05/24/23 10:18

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			05/25/23 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*79*		*60 - 140*		*05/25/23 23:26*	*1*

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

Lab Sample ID: 380-48562-7
Date Collected: 05/22/23 11:05
Matrix: Water
Date Received: 05/24/23 10:18

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			05/26/23 00:02	1

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

Job ID: 380-48562-1

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

Lab Sample ID: 380-48562-7

Date Collected: 05/22/23 11:05
Matrix: Water
Date Received: 05/24/23 10:18

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*82*		*60 - 140*		*05/26/23 00:02*	*1*

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-8

Date Collected: 05/22/23 10:29
Matrix: Water
Date Received: 05/24/23 10:18

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			05/26/23 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*76*		*60 - 140*		*05/26/23 00:38*	*1*

Action Limit Summary

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

Job ID: 380-48562-1

Client Sample ID: MOANALUA WELLS
Lab Sample ID: 380-48562-1

PWSID Number: HI0000331

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	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.097		ug/L	2	0.097	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.097		ug/L	40	0.097	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2
Lab Sample ID: 380-48562-2

PWSID Number: HI0000331

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	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.097		ug/L	2	0.097	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.097		ug/L	40	0.097	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Lab Sample ID: 380-48562-3

PWSID Number: HI0000331

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	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA

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

Lab Sample ID: 380-48562-3

PWSID Number: HI0000331

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	EPAMCL Limit	RL	Method	Prep Type
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.097		ug/L	2	0.097	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.048		ug/L	0.2	0.048	525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L	1	0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50	0.048	525.2	Total/NA
Lindane	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.097		ug/L	40	0.097	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-4

PWSID Number: HI0000331

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	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.097		ug/L	2	0.097	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.097		ug/L	40	0.097	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-48562-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-48562-1	MOANALUA WELLS	102	99	102
380-48562-1 MS	MOANALUA WELLS	98	92	102
380-48562-2	AIEA GULCH WELLS PUMP 2	103	90	104
380-48562-2 DU	AIEA GULCH WELLS PUMP 2	98	93	98
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	103	92	98
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	104	95	98

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**

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
LCS 380-41917/23-A	Lab Control Sample	96	90	102
LCSD 380-41917/24-A	Lab Control Sample Dup	96	95	103
MB 380-41917/21-A	Method Blank	97	90	94
MRL 380-41917/22-A	Lab Control Sample	99	89	104

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**

		Percent Surrogate Recovery (Acceptance Limits)				
		Acenapht	Phenanth	CRY	NPT	PRY
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)
106792-B1	Method Blank	91	92	91	84	92
106792-BS1	Lab Control Sample	85	88	90	75	89
106792-BS2	Lab Control Sample Dup	87	88	90	81	90

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: 380-48562-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)				
		Acenapht	Phenanth	CRY	NPT	PRY
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)
380-48562-1	MOANALUA WELLS	86	88	87	78	83
380-48562-2	AIEA GULCH WELLS PUMP 2	89	90	91	80	87
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	91	91	91	81	87
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	89	91	91	82	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
380-48562-1	MOANALUA WELLS	81
380-48562-2	AIEA GULCH WELLS PUMP 2	80
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	82
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	81

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	
23VG39E14B	Method Blank	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(70-130)
23VG39E14C	LCD	99
23VG39E14L	Lab Control Sample	99

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

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

Job ID: 380-48562-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
380-48562-5	TB: MOANALUA WELLS	78
380-48562-6	TB: AIEA GULCH WELLS PUMP 2	79
380-48562-7	TB: AIEA WELLS PUMPS 1&2 (260) P2	82
380-48562-8	TB: HALAWA WELLS UNITS 1 & 2 P1	76

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
23E193-01M	Matrix Spike	99
23E193-01S	Matrix Spike Duplicate	111

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
380-48562-1	MOANALUA WELLS	79	98
380-48562-2	AIEA GULCH WELLS PUMP 2	78	101
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	81	104
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	82	110

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID		
23DSF003WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Surrogate Summary

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

Job ID: 380-48562-1

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

Matrix: WATER

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
23DSF003WC	LCD	80	105
23DSF003WL	Lab Control Sample	62	98
23J5F003WC	LCD	76	94
23J5F003WL	Lab Control Sample	76	102
23J8F003WC	LCD	85	113
23J8F003WL	Lab Control Sample	88	105

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

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

Lab Sample ID: MB 380-41917/21-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41917

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2,4'-DDD	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2,4'-DDE	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2,4'-DDT	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2,4-Dinitrotoluene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2,6-Dinitrotoluene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
2-Methylnaphthalene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
4,4'-DDD	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
4,4'-DDE	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
4,4'-DDT	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Acenaphthene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Acenaphthylene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Acetochlor	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Alachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
alpha-BHC	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
alpha-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Anthracene	<0.020		0.020		ug/L		05/27/23 15:01	05/31/23 11:49	1
Atrazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Benz(a)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Benzo[a]pyrene	<0.020		0.020		ug/L		05/27/23 15:01	05/31/23 11:49	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		05/27/23 15:01	05/31/23 11:49	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		05/27/23 15:01	05/31/23 11:49	1
beta-BHC	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		05/27/23 15:01	05/31/23 11:49	1
Bromacil	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Butachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Butylbenzylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 11:49	1
Chlorobenzilate	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Chloroneb	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Chlorpyrifos	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Chrysene	<0.020		0.020		ug/L		05/27/23 15:01	05/31/23 11:49	1
delta-BHC	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Di(2-ethylhexyl)adipate	<0.59		0.59		ug/L		05/27/23 15:01	05/31/23 11:49	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Dieldrin	<0.20		0.20		ug/L		05/27/23 15:01	05/31/23 11:49	1
Diethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 11:49	1
Dimethylphthalate	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 11:49	1
Di-n-butyl phthalate	<0.98		0.98		ug/L		05/27/23 15:01	05/31/23 11:49	1
Di-n-octyl phthalate	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Endosulfan I (Alpha)	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Endosulfan II (Beta)	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Endosulfan sulfate	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Endrin	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Endrin aldehyde	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
EPTC	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1

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

Lab Sample ID: MB 380-41917/21-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41917

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Fluorene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
gamma-Chlordane	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Heptachlor	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 11:49	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Hexachlorobenzene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Isophorone	<0.49		0.49		ug/L		05/27/23 15:01	05/31/23 11:49	1
Lindane	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 11:49	1
Malathion	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Methoxychlor	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Metolachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Molinate	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Naphthalene	<0.29		0.29		ug/L		05/27/23 15:01	05/31/23 11:49	1
Parathion	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Pendimethalin (Penoxaline)	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Phenanthrene	<0.039		0.039		ug/L		05/27/23 15:01	05/31/23 11:49	1
Propachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Pyrene	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Simazine	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Terbacil	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Terbuthylazine	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1
Thiobencarb	<0.20		0.20		ug/L		05/27/23 15:01	05/31/23 11:49	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		05/27/23 15:01	05/31/23 11:49	1
trans-Nonachlor	<0.049		0.049		ug/L		05/27/23 15:01	05/31/23 11:49	1
Trifluralin	<0.098		0.098		ug/L		05/27/23 15:01	05/31/23 11:49	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Decane	*1.54*	*T J N*	*ug/L*		*2.37*	*124-18-5*	*05/27/23 15:01*	*05/31/23 11:49*	*1*
Cyclopentasiloxane, decamethyl-	*0.897*	*T J N*	*ug/L*		*2.66*	*541-02-6*	*05/27/23 15:01*	*05/31/23 11:49*	*1*
n-Hexadecanoic acid	*1.00*	*T J N*	*ug/L*		*5.76*	*57-10-3*	*05/27/23 15:01*	*05/31/23 11:49*	*1*
Octadecanoic acid	*0.683*	*T J N*	*ug/L*		*6.44*	*57-11-4*	*05/27/23 15:01*	*05/31/23 11:49*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*97*		*70 - 130*	*05/27/23 15:01*	*05/31/23 11:49*	*1*
Perylene-d12	*90*		*70 - 130*	*05/27/23 15:01*	*05/31/23 11:49*	*1*
Triphenylphosphate	*94*		*70 - 130*	*05/27/23 15:01*	*05/31/23 11:49*	*1*

Lab Sample ID: LCS 380-41917/23-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	2.04		ug/L		104	70 - 130
2,4'-DDD	1.97	1.99		ug/L		101	70 - 130
2,4'-DDE	1.97	2.00		ug/L		102	70 - 130
2,4'-DDT	1.97	2.12		ug/L		108	70 - 130

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

Lab Sample ID: LCS 380-41917/23-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.97	1.94		ug/L		99	70 - 130
2,6-Dinitrotoluene	1.97	2.07		ug/L		105	70 - 130
2-Methylnaphthalene	1.97	2.03		ug/L		103	70 - 130
4,4'-DDD	1.97	2.09		ug/L		106	70 - 130
4,4'-DDE	1.97	1.89		ug/L		96	70 - 130
4,4'-DDT	1.97	1.98		ug/L		101	70 - 130
Acenaphthene	1.97	1.93		ug/L		98	70 - 130
Acenaphthylene	1.97	1.97		ug/L		100	70 - 130
Acetochlor	1.97	1.91		ug/L		97	70 - 130
Alachlor	1.97	2.03		ug/L		103	70 - 130
alpha-BHC	1.97	1.81		ug/L		92	70 - 130
alpha-Chlordane	1.97	2.08		ug/L		106	70 - 130
Anthracene	1.97	2.01		ug/L		102	70 - 130
Atrazine	1.97	2.18		ug/L		111	70 - 130
Benz(a)anthracene	1.97	2.11		ug/L		107	70 - 130
Benzo[a]pyrene	1.97	2.23		ug/L		113	70 - 130
Benzo[b]fluoranthene	1.97	2.41		ug/L		123	70 - 130
Benzo[g,h,i]perylene	1.97	2.01		ug/L		102	70 - 130
Benzo[k]fluoranthene	1.97	2.39		ug/L		121	70 - 130
beta-BHC	1.97	1.87		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	1.91		ug/L		97	70 - 130
Bromacil	1.97	2.01		ug/L		102	70 - 130
Butachlor	1.97	2.22		ug/L		113	70 - 130
Butylbenzylphthalate	1.97	2.17		ug/L		110	70 - 130
Chlorobenzilate	1.97	1.85		ug/L		94	70 - 130
Chloroneb	1.97	2.08		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	1.90		ug/L		96	70 - 130
Chlorpyrifos	1.97	2.17		ug/L		110	70 - 130
Chrysene	1.97	2.13		ug/L		108	70 - 130
delta-BHC	1.97	1.84		ug/L		94	70 - 130
Di(2-ethylhexyl)adipate	1.97	1.96		ug/L		100	70 - 130
Dibenz(a,h)anthracene	1.97	2.19		ug/L		111	70 - 130
Diclorvos (DDVP)	1.97	1.68		ug/L		85	70 - 130
Dieldrin	1.97	2.08		ug/L		106	70 - 130
Diethylphthalate	1.97	1.94		ug/L		98	70 - 130
Dimethylphthalate	1.97	2.08		ug/L		106	70 - 130
Di-n-butyl phthalate	3.94	4.05		ug/L		103	70 - 130
Di-n-octyl phthalate	1.97	1.71		ug/L		87	70 - 130
Endosulfan I (Alpha)	1.97	1.89		ug/L		96	70 - 130
Endosulfan II (Beta)	1.97	2.03		ug/L		103	70 - 130
Endosulfan sulfate	1.97	2.25		ug/L		114	70 - 130
Endrin	1.97	2.06		ug/L		105	70 - 130
Endrin aldehyde	1.97	1.72		ug/L		88	70 - 130
EPTC	1.97	2.19		ug/L		112	70 - 130
Fluoranthene	1.97	2.08		ug/L		106	70 - 130
Fluorene	1.97	2.03		ug/L		103	70 - 130
gamma-Chlordane	1.97	2.06		ug/L		105	70 - 130
Heptachlor	1.97	2.12		ug/L		108	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.12		ug/L		108	70 - 130

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

Lab Sample ID: LCS 380-41917/23-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.97	2.00		ug/L		101	70 - 130
Hexachlorocyclopentadiene	1.97	2.13		ug/L		108	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	2.15		ug/L		109	70 - 130
Isophorone	1.97	1.94		ug/L		99	70 - 130
Lindane	1.97	1.89		ug/L		96	70 - 130
Malathion	1.97	1.91		ug/L		97	70 - 130
Methoxychlor	1.97	2.26		ug/L		115	70 - 130
Metolachlor	1.97	2.13		ug/L		108	70 - 130
Molinate	1.97	2.12		ug/L		108	70 - 130
Naphthalene	1.97	2.02		ug/L		103	70 - 130
Parathion	1.97	2.21		ug/L		112	70 - 130
Pendimethalin (Penoxaline)	1.97	2.06		ug/L		105	70 - 130
Phenanthrene	1.97	1.99		ug/L		101	70 - 130
Propachlor	1.97	1.89		ug/L		96	70 - 130
Pyrene	1.97	2.06		ug/L		105	70 - 130
Simazine	1.97	2.20		ug/L		112	70 - 130
Terbacil	1.97	2.25		ug/L		114	70 - 130
Terbuthylazine	1.97	2.22		ug/L		113	70 - 130
Thiobencarb	1.97	2.02		ug/L		103	70 - 130
trans-Nonachlor	1.97	2.23		ug/L		114	70 - 130
Trifluralin	1.97	1.87		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*96*		*70 - 130*
Perylene-d12	*90*		*70 - 130*
Triphenylphosphate	*102*		*70 - 130*

Lab Sample ID: LCSD 380-41917/24-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.97	2.05		ug/L		104	70 - 130	0	20
2,4'-DDD	1.97	2.04		ug/L		103	70 - 130	3	20
2,4'-DDE	1.97	2.00		ug/L		102	70 - 130	0	20
2,4'-DDT	1.97	2.15		ug/L		109	70 - 130	1	20
2,4-Dinitrotoluene	1.97	1.95		ug/L		99	70 - 130	1	20
2,6-Dinitrotoluene	1.97	2.06		ug/L		104	70 - 130	0	20
2-Methylnaphthalene	1.97	2.06		ug/L		105	70 - 130	2	20
4,4'-DDD	1.97	2.09		ug/L		106	70 - 130	0	20
4,4'-DDE	1.97	1.99		ug/L		101	70 - 130	5	20
4,4'-DDT	1.97	2.02		ug/L		103	70 - 130	2	20
Acenaphthene	1.97	1.98		ug/L		100	70 - 130	2	20
Acenaphthylene	1.97	1.96		ug/L		99	70 - 130	1	20
Acetochlor	1.97	1.83		ug/L		93	70 - 130	4	20
Alachlor	1.97	2.03		ug/L		103	70 - 130	0	20
alpha-BHC	1.97	1.86		ug/L		95	70 - 130	3	20
alpha-Chlordane	1.97	2.07		ug/L		105	70 - 130	0	20

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

Lab Sample ID: LCSD 380-41917/24-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41917

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene			1.97	1.98		ug/L		100	70 - 130	2	20
Atrazine			1.97	2.24		ug/L		114	70 - 130	3	20
Benz(a)anthracene			1.97	2.12		ug/L		108	70 - 130	0	20
Benzo[a]pyrene			1.97	2.30		ug/L		117	70 - 130	3	20
Benzo[b]fluoranthene			1.97	2.36		ug/L		120	70 - 130	2	20
Benzo[g,h,i]perylene			1.97	1.97		ug/L		100	70 - 130	2	20
Benzo[k]fluoranthene			1.97	2.40		ug/L		122	70 - 130	1	20
beta-BHC			1.97	1.88		ug/L		95	70 - 130	1	20
Bis(2-ethylhexyl) phthalate			1.97	1.99		ug/L		101	70 - 130	4	20
Bromacil			1.97	2.00		ug/L		101	70 - 130	1	20
Butachlor			1.97	2.20		ug/L		112	70 - 130	1	20
Butylbenzylphthalate			1.97	2.19		ug/L		111	70 - 130	1	20
Chlorobenzilate			1.97	1.80		ug/L		91	70 - 130	3	20
Chloroneb			1.97	2.12		ug/L		107	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)			1.97	1.97		ug/L		100	70 - 130	4	20
Chlorpyrifos			1.97	2.18		ug/L		111	70 - 130	1	20
Chrysene			1.97	2.15		ug/L		109	70 - 130	1	20
delta-BHC			1.97	1.80		ug/L		92	70 - 130	2	20
Di(2-ethylhexyl)adipate			1.97	2.01		ug/L		102	70 - 130	3	20
Dibenz(a,h)anthracene			1.97	2.29		ug/L		116	70 - 130	5	20
Diclorvos (DDVP)			1.97	1.64		ug/L		83	70 - 130	2	20
Dieldrin			1.97	2.09		ug/L		106	70 - 130	0	20
Diethylphthalate			1.97	1.98		ug/L		100	70 - 130	2	20
Dimethylphthalate			1.97	2.09		ug/L		106	70 - 130	1	20
Di-n-butyl phthalate			3.94	4.10		ug/L		104	70 - 130	1	20
Di-n-octyl phthalate			1.97	1.77		ug/L		90	70 - 130	4	20
Endosulfan I (Alpha)			1.97	1.87		ug/L		95	70 - 130	1	20
Endosulfan II (Beta)			1.97	2.10		ug/L		107	70 - 130	3	20
Endosulfan sulfate			1.97	2.28		ug/L		116	70 - 130	1	20
Endrin			1.97	2.12		ug/L		108	70 - 130	3	20
Endrin aldehyde			1.97	1.71		ug/L		87	70 - 130	1	20
EPTC			1.97	2.13		ug/L		108	70 - 130	3	20
Fluoranthene			1.97	2.07		ug/L		105	70 - 130	0	20
Fluorene			1.97	2.04		ug/L		104	70 - 130	1	20
gamma-Chlordane			1.97	2.12		ug/L		108	70 - 130	3	20
Heptachlor			1.97	2.10		ug/L		107	70 - 130	1	20
Heptachlor epoxide (isomer B)			1.97	2.12		ug/L		108	70 - 130	0	20
Hexachlorobenzene			1.97	2.03		ug/L		103	70 - 130	2	20
Hexachlorocyclopentadiene			1.97	2.13		ug/L		108	70 - 130	0	20
Indeno[1,2,3-cd]pyrene			1.97	2.18		ug/L		111	70 - 130	1	20
Isophorone			1.97	1.95		ug/L		99	70 - 130	0	20
Lindane			1.97	1.95		ug/L		99	70 - 130	3	20
Malathion			1.97	1.93		ug/L		98	70 - 130	1	20
Methoxychlor			1.97	2.29		ug/L		116	70 - 130	1	20
Metolachlor			1.97	2.11		ug/L		107	70 - 130	1	20
Molinate			1.97	2.09		ug/L		106	70 - 130	2	20
Naphthalene			1.97	2.02		ug/L		103	70 - 130	0	20
Parathion			1.97	2.20		ug/L		112	70 - 130	0	20
Pendimethalin (Penoxaline)			1.97	2.08		ug/L		106	70 - 130	1	20

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

Lab Sample ID: LCSD 380-41917/24-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	1.97	1.97		ug/L		100	70 - 130	1	20
Propachlor	1.97	1.93		ug/L		98	70 - 130	2	20
Pyrene	1.97	2.09		ug/L		106	70 - 130	1	20
Simazine	1.97	2.17		ug/L		110	70 - 130	1	20
Terbacil	1.97	2.23		ug/L		113	70 - 130	1	20
Terbuthylazine	1.97	2.28		ug/L		116	70 - 130	3	20
Thiobencarb	1.97	2.00		ug/L		101	70 - 130	1	20
trans-Nonachlor	1.97	2.28		ug/L		116	70 - 130	2	20
Trifluralin	1.97	1.89		ug/L		96	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Nitro-m-xylene	*96*		*70 - 130*
Perylene-d12	*95*		*70 - 130*
Triphenylphosphate	*103*		*70 - 130*

Lab Sample ID: MRL 380-41917/22-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0985	0.119		ug/L		121	50 - 150
2,4'-DDD	0.0985	0.139		ug/L		141	50 - 150
2,4'-DDE	0.0985	0.117		ug/L		119	50 - 150
2,4'-DDT	0.0985	0.105		ug/L		106	50 - 150
2,4-Dinitrotoluene	0.0985	0.0792	J	ug/L		80	50 - 150
2,6-Dinitrotoluene	0.0985	0.0973	J	ug/L		99	50 - 150
2-Methylnaphthalene	0.0985	0.112		ug/L		113	50 - 150
4,4'-DDD	0.0985	0.106		ug/L		108	50 - 150
4,4'-DDE	0.0985	0.0929	J	ug/L		94	50 - 150
4,4'-DDT	0.0985	0.140		ug/L		142	50 - 150
Acenaphthene	0.0985	0.104		ug/L		106	50 - 150
Acenaphthylene	0.0985	0.0840	J	ug/L		85	50 - 150
Acetochlor	0.0493	0.0506	J	ug/L		103	50 - 150
Alachlor	0.0493	0.0559		ug/L		113	50 - 150
alpha-BHC	0.0985	0.0919	J	ug/L		93	50 - 150
alpha-Chlordane	0.0246	<0.029		ug/L		95	50 - 150
Anthracene	0.0197	0.0200		ug/L		102	50 - 150
Atrazine	0.0493	<0.047		ug/L		80	50 - 150
Benz(a)anthracene	0.0493	0.0500		ug/L		101	50 - 150
Benzo[a]pyrene	0.0197	0.0192	J	ug/L		98	50 - 150
Benzo[b]fluoranthene	0.0197	0.0240		ug/L		122	50 - 150
Benzo[g,h,i]perylene	0.0493	0.0696		ug/L		141	50 - 150
Benzo[k]fluoranthene	0.0197	0.0221		ug/L		112	50 - 150
beta-BHC	0.0985	0.0986	J	ug/L		100	50 - 150
Bis(2-ethylhexyl) phthalate	0.591	0.685		ug/L		116	50 - 150
Bromacil	0.0985	0.140		ug/L		142	50 - 150
Butachlor	0.0493	0.0628		ug/L		127	50 - 150
Butylbenzylphthalate	0.148	0.174	J	ug/L		118	50 - 150

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

Lab Sample ID: MRL 380-41917/22-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	0.0985	0.120		ug/L		122	50 - 150
Chloroneb	0.0985	0.104		ug/L		106	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0985	0.129		ug/L		131	50 - 150
Chlorpyrifos	0.0493	0.0562		ug/L		114	50 - 150
Chrysene	0.0197	0.0220		ug/L		112	50 - 150
delta-BHC	0.0985	0.109		ug/L		110	50 - 150
Di(2-ethylhexyl)adipate	0.296	0.366	J	ug/L		124	50 - 150
Dibenz(a,h)anthracene	0.0493	0.0707		ug/L		144	50 - 150
Diclorvos (DDVP)	0.0493	0.0492		ug/L		100	50 - 150
Dieldrin	0.0985	0.107	J	ug/L		109	50 - 150
Diethylphthalate	0.148	0.164	J	ug/L		111	50 - 150
Dimethylphthalate	0.296	0.310	J	ug/L		105	50 - 150
Di-n-butyl phthalate	0.296	0.393	J	ug/L		133	49 - 243
Di-n-octyl phthalate	0.0985	0.126		ug/L		128	50 - 150
Endosulfan I (Alpha)	0.0985	0.114		ug/L		116	50 - 150
Endosulfan II (Beta)	0.0985	0.128		ug/L		130	50 - 150
Endosulfan sulfate	0.0985	0.116		ug/L		118	50 - 150
Endrin	0.0985	0.127		ug/L		129	50 - 150
Endrin aldehyde	0.0985	<0.083		ug/L		78	50 - 150
EPTC	0.0985	0.106		ug/L		108	50 - 150
Fluoranthene	0.0493	0.0544	J	ug/L		110	50 - 150
Fluorene	0.0493	0.0524		ug/L		106	50 - 150
gamma-Chlordane	0.0246	0.0272	J	ug/L		111	50 - 150
Heptachlor	0.0394	0.0433		ug/L		110	50 - 150
Heptachlor epoxide (isomer B)	0.0493	0.0491		ug/L		100	50 - 150
Hexachlorobenzene	0.0493	0.0502		ug/L		102	50 - 150
Hexachlorocyclopentadiene	0.0493	0.0457	J	ug/L		93	50 - 150
Indeno[1,2,3-cd]pyrene	0.0493	0.0710		ug/L		144	50 - 150
Isophorone	0.0985	0.109	J	ug/L		110	50 - 150
Lindane	0.0394	0.0343	J	ug/L		87	50 - 150
Malathion	0.0985	0.127		ug/L		129	50 - 150
Methoxychlor	0.0985	0.122		ug/L		124	50 - 150
Metolachlor	0.0493	0.0655		ug/L		133	50 - 150
Molinate	0.0985	0.111		ug/L		112	50 - 150
Naphthalene	0.0985	0.111	J	ug/L		113	50 - 150
Parathion	0.0985	0.145		ug/L		147	50 - 150
Pendimethalin (Penoxaline)	0.0985	0.147		ug/L		149	50 - 150
Phenanthrene	0.0197	0.0220	J	ug/L		112	50 - 150
Propachlor	0.0493	0.0719		ug/L		146	50 - 150
Pyrene	0.0493	0.0545		ug/L		111	50 - 150
Simazine	0.0493	0.0453	J	ug/L		92	50 - 150
Terbacil	0.0985	0.131		ug/L		133	50 - 150
Terbuthylazine	0.0985	0.0853	J	ug/L		87	50 - 150
Thiobencarb	0.0985	0.121	J	ug/L		122	50 - 150
trans-Nonachlor	0.0246	0.0273	J	ug/L		111	50 - 150
Trifluralin	0.0985	0.127		ug/L		129	50 - 150

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

Lab Sample ID: MRL 380-41917/22-A
Matrix: Water
Analysis Batch: 42146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41917

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	89		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: 380-48562-1 MS
Matrix: Drinking Water
Analysis Batch: 42146

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.96	2.07		ug/L		106	70 - 130
2,4'-DDD	<0.097		1.96	1.98		ug/L		101	70 - 130
2,4'-DDE	<0.097		1.96	1.95		ug/L		100	70 - 130
2,4'-DDT	<0.097		1.96	2.08		ug/L		106	70 - 130
2,4-Dinitrotoluene	<0.097		1.96	2.00		ug/L		102	70 - 130
2,6-Dinitrotoluene	<0.097		1.96	2.07		ug/L		106	70 - 130
2-Methylnaphthalene	<0.097		1.96	2.07		ug/L		106	70 - 130
4,4'-DDD	<0.097		1.96	2.06		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.96	1.90		ug/L		97	70 - 130
4,4'-DDT	<0.097		1.96	1.93		ug/L		99	70 - 130
Acenaphthene	<0.097		1.96	1.97		ug/L		101	70 - 130
Acenaphthylene	<0.097		1.96	2.00		ug/L		102	70 - 130
Acetochlor	<0.097		1.96	1.87		ug/L		95	70 - 130
Alachlor	<0.049		1.96	2.05		ug/L		104	70 - 130
alpha-BHC	<0.097		1.96	1.88		ug/L		96	70 - 130
alpha-Chlordane	<0.049		1.96	2.10		ug/L		107	70 - 130
Anthracene	<0.019	F1	1.96	1.33	F1	ug/L		68	70 - 130
Atrazine	<0.049		1.96	2.22		ug/L		113	70 - 130
Benz(a)anthracene	<0.049		1.96	1.91		ug/L		98	70 - 130
Benzo[a]pyrene	<0.019		1.96	1.98		ug/L		101	70 - 130
Benzo[b]fluoranthene	<0.019		1.96	2.50		ug/L		127	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	2.01		ug/L		102	70 - 130
Benzo[k]fluoranthene	<0.019		1.96	2.54		ug/L		130	70 - 130
beta-BHC	<0.097		1.96	1.89		ug/L		97	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.96	2.10		ug/L		107	70 - 130
Bromacil	<0.097		1.96	2.05		ug/L		105	70 - 130
Butachlor	<0.049		1.96	2.27		ug/L		116	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.18		ug/L		111	70 - 130
Chlorobenzilate	<0.097		1.96	1.80		ug/L		92	70 - 130
Chloroneb	<0.097		1.96	2.08		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.96	1.94		ug/L		99	70 - 130
Chlorpyrifos	<0.049		1.96	2.16		ug/L		110	70 - 130
Chrysene	<0.019		1.96	2.20		ug/L		112	70 - 130
delta-BHC	<0.097		1.96	1.82		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.96	1.97		ug/L		101	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	2.16		ug/L		110	70 - 130
Diclorvos (DDVP)	<0.049		1.96	1.65		ug/L		84	70 - 130
Dieldrin	<0.19		1.96	2.07		ug/L		106	70 - 130
Diethylphthalate	<0.49		1.96	2.06		ug/L		105	70 - 130

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

Lab Sample ID: 380-48562-1 MS
Matrix: Drinking Water
Analysis Batch: 42146

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dimethylphthalate	<0.49		1.96	2.12		ug/L		108	70 - 130
Di-n-butyl phthalate	<0.97		3.92	4.08		ug/L		104	70 - 130
Di-n-octyl phthalate	<0.097		1.96	1.89		ug/L		97	70 - 130
Endosulfan I (Alpha)	<0.097		1.96	1.85		ug/L		95	70 - 130
Endosulfan II (Beta)	<0.097		1.96	2.05		ug/L		105	70 - 130
Endosulfan sulfate	<0.097		1.96	2.27		ug/L		116	70 - 130
Endrin	<0.097		1.96	2.03		ug/L		103	70 - 130
Endrin aldehyde	<0.097		1.96	1.67		ug/L		85	70 - 130
EPTC	<0.097		1.96	2.24		ug/L		115	70 - 130
Fluoranthene	<0.097		1.96	2.05		ug/L		105	70 - 130
Fluorene	<0.049		1.96	2.06		ug/L		105	70 - 130
gamma-Chlordane	<0.049		1.96	2.12		ug/L		108	70 - 130
Heptachlor	<0.039		1.96	2.11		ug/L		108	70 - 130
Heptachlor epoxide (isomer B)	<0.049		1.96	2.12		ug/L		108	70 - 130
Hexachlorobenzene	<0.049		1.96	2.10		ug/L		107	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	2.05		ug/L		105	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.96	2.18		ug/L		111	70 - 130
Isophorone	<0.49		1.96	1.91		ug/L		98	70 - 130
Lindane	<0.039		1.96	1.93		ug/L		99	70 - 130
Malathion	<0.097		1.96	1.99		ug/L		102	70 - 130
Methoxychlor	<0.097		1.96	2.46		ug/L		126	70 - 130
Metolachlor	<0.049		1.96	2.17		ug/L		111	70 - 130
Molinate	<0.097		1.96	2.22		ug/L		113	70 - 130
Naphthalene	<0.29		1.96	2.04		ug/L		104	70 - 130
Parathion	<0.097		1.96	2.22		ug/L		114	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.96	2.10		ug/L		107	70 - 130
Phenanthrene	<0.039		1.96	1.99		ug/L		102	70 - 130
Propachlor	<0.049		1.96	1.95		ug/L		100	70 - 130
Pyrene	<0.049		1.96	2.06		ug/L		105	70 - 130
Simazine	<0.049		1.96	2.22		ug/L		113	70 - 130
Terbacil	<0.097		1.96	2.33		ug/L		119	70 - 130
Terbuthylazine	<0.097		1.96	2.25		ug/L		115	70 - 130
Thiobencarb	<0.19		1.96	2.03		ug/L		104	70 - 130
trans-Nonachlor	<0.049		1.96	2.32		ug/L		119	70 - 130
Trifluralin	<0.097		1.96	1.91		ug/L		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*98*		*70 - 130*
Perylene-d12	*92*		*70 - 130*
Triphenylphosphate	*102*		*70 - 130*

Lab Sample ID: 380-48562-2 DU
Matrix: Drinking Water
Analysis Batch: 42146

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
2,4'-DDD	<0.097		<0.097		ug/L		NC	20

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

Lab Sample ID: 380-48562-2 DU
Matrix: Drinking Water
Analysis Batch: 42146

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
2,4'-DDE	<0.097		<0.097		ug/L		NC	20
2,4'-DDT	<0.097		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
4,4'-DDD	<0.097		<0.097		ug/L		NC	20
4,4'-DDE	<0.097		<0.097		ug/L		NC	20
4,4'-DDT	<0.097		<0.097		ug/L		NC	20
Acenaphthene	<0.097		<0.097		ug/L		NC	20
Acenaphthylene	<0.097		<0.097		ug/L		NC	20
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.049		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.049		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.049		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.097		ug/L		NC	20
Butachlor	<0.049		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.097		ug/L		NC	20
Chloroneb	<0.097		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.097		ug/L		NC	20
Chlorpyrifos	<0.049		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.048		ug/L		NC	20
Dieldrin	<0.19		<0.19		ug/L		NC	20
Diethylphthalate	<0.49		<0.48		ug/L		NC	20
Dimethylphthalate	<0.49		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.097		<0.097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.049		<0.048		ug/L		NC	20
gamma-Chlordane	<0.049		<0.048		ug/L		NC	20

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

Lab Sample ID: 380-48562-2 DU
Matrix: Drinking Water
Analysis Batch: 42146

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 41917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Heptachlor	<0.039			<0.039		ug/L				NC	20
Heptachlor epoxide (isomer B)	<0.049			<0.048		ug/L				NC	20
Hexachlorobenzene	<0.049			<0.048		ug/L				NC	20
Hexachlorocyclopentadiene	<0.049			<0.048		ug/L				NC	20
Indeno[1,2,3-cd]pyrene	<0.049			<0.048		ug/L				NC	20
Isophorone	<0.49			<0.48		ug/L				NC	20
Lindane	<0.039			<0.039		ug/L				NC	20
Malathion	<0.097			<0.097		ug/L				NC	20
Methoxychlor	<0.097			<0.097		ug/L				NC	20
Metolachlor	<0.049			<0.048		ug/L				NC	20
Molinate	<0.097			<0.097		ug/L				NC	20
Naphthalene	<0.29			<0.29		ug/L				NC	20
Parathion	<0.097			<0.097		ug/L				NC	20
Pendimethalin (Penoxaline)	<0.097			<0.097		ug/L				NC	20
Phenanthrene	<0.039			<0.039		ug/L				NC	20
Propachlor	<0.049			<0.048		ug/L				NC	20
Pyrene	<0.049			<0.048		ug/L				NC	20
Simazine	<0.049			<0.048		ug/L				NC	20
Terbacil	<0.097			<0.097		ug/L				NC	20
Terbuthylazine	<0.097			<0.097		ug/L				NC	20
Thiobencarb	<0.19			<0.19		ug/L				NC	20
Total Permethrin (mixed isomers)	<0.19			<0.19		ug/L				NC	20
trans-Nonachlor	<0.049			<0.048		ug/L				NC	20
Trifluralin	<0.097			<0.097		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*98*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*98*		*70 - 130*

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

Lab Sample ID: 106792-B1
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-41068_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Acenaphthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Acenaphthylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1

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

Lab Sample ID: 106792-B1
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-41068_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Biphenyl	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Chrysene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Dibenzothiophene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		05/25/23 00:00	06/08/23 13:16	1
Fluoranthene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Fluorene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Naphthalene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Perylene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Phenanthrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1
Pyrene	ND		0.005	0.001	µg/L		05/25/23 00:00	06/08/23 13:16	1

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*91*		*27 - 133*	*05/25/23 00:00*	*06/08/23 13:16*	*1*
(d10-Phenanthrene)	*92*		*43 - 129*	*05/25/23 00:00*	*06/08/23 13:16*	*1*
(d12-Chrysene)	*91*		*52 - 144*	*05/25/23 00:00*	*06/08/23 13:16*	*1*
(d12-Perylene)	*92*		*36 - 161*	*05/25/23 00:00*	*06/08/23 13:16*	*1*
(d8-Naphthalene)	*84*		*25 - 125*	*05/25/23 00:00*	*06/08/23 13:16*	*1*

Lab Sample ID: 106792-BS1
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-41068_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.421		µg/L		84	31 - 128
1-Methylphenanthrene	0.5	0.473		µg/L		95	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.453		µg/L		91	55 - 122
2,6-Dimethylnaphthalene	0.5	0.44		µg/L		88	48 - 120
2-Methylnaphthalene	0.5	0.417		µg/L		83	47 - 130
Acenaphthene	0.5	0.45		µg/L		90	53 - 131
Acenaphthylene	0.5	0.452		µg/L		90	43 - 140
Anthracene	0.5	0.467		µg/L		93	58 - 135
Benz[a]anthracene	0.5	0.493		µg/L		99	55 - 145
Benzo[a]pyrene	0.5	0.447		µg/L		89	51 - 143
Benzo[b]fluoranthene	0.5	0.511		µg/L		102	46 - 165
Benzo[e]pyrene	0.5	0.489		µg/L		98	42 - 152
Benzo[g,h,i]perylene	0.5	0.502		µg/L		100	63 - 133
Benzo[k]fluoranthene	0.5	0.501		µg/L		100	56 - 145
Biphenyl	0.5	0.445		µg/L		89	56 - 119
Chrysene	0.5	0.474		µg/L		95	56 - 141
Dibenz[a,h]anthracene	0.5	0.526		µg/L		105	55 - 150
Dibenzo[a,l]pyrene	0.5	0.572		µg/L		114	50 - 150
Dibenzothiophene	0.5	0.465		µg/L		93	46 - 126
Disalicylidenepropanediamine	25	22.3		µg/L		89	50 - 150

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

Lab Sample ID: 106792-BS1
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-41068_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoranthene			0.5	0.483		µg/L		97	60 - 146		
Fluorene			0.5	0.469		µg/L		94	58 - 131		
Indeno[1,2,3-cd]pyrene			0.5	0.519		µg/L		104	50 - 151		
Naphthalene			0.5	0.4		µg/L		80	41 - 126		
Perylene			0.5	0.468		µg/L		94	48 - 141		
Phenanthrene			0.5	0.47		µg/L		94	67 - 127		
Pyrene			0.5	0.475		µg/L		95	54 - 156		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
(d10-Acenaphthene)	*85*		*27 - 133*
(d10-Phenanthrene)	*88*		*43 - 129*
(d12-Chrysene)	*90*		*52 - 144*
(d12-Perylene)	*89*		*36 - 161*
(d8-Naphthalene)	*75*		*25 - 125*

Lab Sample ID: 106792-BS2
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-41068_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			0.5	0.441		µg/L		88	31 - 128	5	30
1-Methylphenanthrene			0.5	0.475		µg/L		95	66 - 127	0	30
2,3,5-Trimethylnaphthalene			0.5	0.47		µg/L		94	55 - 122	3	30
2,6-Dimethylnaphthalene			0.5	0.455		µg/L		91	48 - 120	3	30
2-Methylnaphthalene			0.5	0.443		µg/L		89	47 - 130	7	30
Acenaphthene			0.5	0.463		µg/L		93	53 - 131	3	30
Acenaphthylene			0.5	0.465		µg/L		93	43 - 140	3	30
Anthracene			0.5	0.468		µg/L		94	58 - 135	1	30
Benz[a]anthracene			0.5	0.501		µg/L		100	55 - 145	1	30
Benzo[a]pyrene			0.5	0.481		µg/L		96	51 - 143	8	30
Benzo[b]fluoranthene			0.5	0.511		µg/L		102	46 - 165	0	30
Benzo[e]pyrene			0.5	0.49		µg/L		98	42 - 152	0	30
Benzo[g,h,i]perylene			0.5	0.497		µg/L		99	63 - 133	1	30
Benzo[k]fluoranthene			0.5	0.514		µg/L		103	56 - 145	3	30
Biphenyl			0.5	0.458		µg/L		92	56 - 119	3	30
Chrysene			0.5	0.479		µg/L		96	56 - 141	1	30
Dibenz[a,h]anthracene			0.5	0.531		µg/L		106	55 - 150	1	30
Dibenzo[a,l]pyrene			0.5	0.568		µg/L		114	50 - 150	0	30
Dibenzothiophene			0.5	0.461		µg/L		92	46 - 126	1	30
Disalicylidenepropanediamine			25	23.7		µg/L		95	50 - 150	7	30
Fluoranthene			0.5	0.486		µg/L		97	60 - 146	0	30
Fluorene			0.5	0.477		µg/L		95	58 - 131	1	30
Indeno[1,2,3-cd]pyrene			0.5	0.523		µg/L		105	50 - 151	1	30
Naphthalene			0.5	0.433		µg/L		87	41 - 126	8	30
Perylene			0.5	0.462		µg/L		92	48 - 141	2	30
Phenanthrene			0.5	0.468		µg/L		94	67 - 127	0	30
Pyrene			0.5	0.48		µg/L		96	54 - 156	1	30

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

Lab Sample ID: 106792-BS2
Matrix: BlankMatrix
Analysis Batch: O-41068

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-41068_P

Surrogate	*LCS DUP %Recovery*	*LCS DUP Qualifier*	*Limits*
(d10-Acenaphthene)	*87*		*27 - 133*
(d10-Phenanthrene)	*88*		*43 - 129*
(d12-Chrysene)	*90*		*52 - 144*
(d12-Perylene)	*90*		*36 - 161*
(d8-Naphthalene)	*81*		*25 - 125*

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

Lab Sample ID: 23VG39E14B
Matrix: WATER
Analysis Batch: 23VG39E14

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			05/25/23 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE					*05/25/23 16:52*	*1*

Lab Sample ID: 23VG39E14L
Matrix: WATER
Analysis Batch: 23VG39E14

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	0.427		mg/L		85	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*99*		*70 - 130*

Lab Sample ID: 23E193-01M
Matrix: WATER
Analysis Batch: 23VG39E14

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	0.427		mg/L		85	50 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*99*		*60 - 140*

Lab Sample ID: 23E193-01S
Matrix: WATER
Analysis Batch: 23VG39E14

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	0.461		mg/L		92	50 - 130	8	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
BROMOFLUOROBENZENE	*111*		*60 - 140*

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

Lab Sample ID: 23DSF003WB
Matrix: WATER
Analysis Batch: 23DSF003W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			06/05/23 15:13	1
JP5	ND	U	0.050		mg/L			06/05/23 15:13	1
JP8	ND	U	0.050		mg/L			06/05/23 15:13	1
MOTOR OIL	ND	U	0.050		mg/L			06/05/23 15:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE					*06/05/23 15:13*	*1*
HEXACOSANE					*06/05/23 15:13*	*1*

Lab Sample ID: 23DSF003WL
Matrix: WATER
Analysis Batch: 23DSF003W

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	1.72		mg/L		69	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*62*		*60 - 130*
HEXACOSANE	*98*		*60 - 130*

Lab Sample ID: 23J5F003WL
Matrix: WATER
Analysis Batch: 23DSF003W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP5			2.50	1.79		mg/L		72	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*76*		*60 - 130*
HEXACOSANE	*102*		*60 - 130*

Lab Sample ID: 23J8F003WL
Matrix: WATER
Analysis Batch: 23DSF003W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP8			2.50	2.14		mg/L		86	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*88*		*60 - 130*
HEXACOSANE	*105*		*60 - 130*

GC/MS Semi VOA

Prep Batch: 41917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	
MB 380-41917/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-41917/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-41917/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-41917/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-48562-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	525.2	
380-48562-2 DU	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	

Analysis Batch: 42146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	41917
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	41917
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	41917
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	41917
MB 380-41917/21-A	Method Blank	Total/NA	Water	525.2	41917
LCS 380-41917/23-A	Lab Control Sample	Total/NA	Water	525.2	41917
LCSD 380-41917/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	41917
MRL 380-41917/22-A	Lab Control Sample	Total/NA	Water	525.2	41917
380-48562-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	525.2	41917
380-48562-2 DU	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	41917

Subcontract

Analysis Batch: O-41068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-41068_P
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-41068_P
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-41068_P
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-41068_P
106792-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41068_P
106792-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41068_P
106792-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-41068_P

Analysis Batch: 23DSF003W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	

Subcontract (Continued)

Analysis Batch: 23DSF003W (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
23DSF003WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23DSF003WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J5F003WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J8F003WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	

Analysis Batch: 23VG39E14

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-5	TB: MOANALUA WELLS	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-6	TB: AIEA GULCH WELLS PUMP 2	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-7	TB: AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-48562-8	TB: HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
23VG39E14B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23VG39E14L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23E193-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23E193-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-41068_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-1	MOANALUA WELLS	Total/NA	Drinking Water	EPA_625	

Subcontract (Continued)

Prep Batch: O-41068_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-48562-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	EPA_625	
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	EPA_625	
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	EPA_625	
106792-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
106792-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
106792-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-48562-1

Client Sample ID: MOANALUA WELLS
Lab Sample ID: 380-48562-1
Date Collected: 05/22/23 10:02
Matrix: Drinking Water
Date Received: 05/24/23 10:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			41917	N8NE	EA POM	05/27/23 15:01
Total/NA	Analysis	525.2		1	42146	UPAC	EA POM	05/31/23 12:13
Total/NA	Prep	EPA_625		1	O-41068_P			05/25/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-41068	YC		06/08/23 18:34
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39E14	SCerva		05/25/23 18:39
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSF003W	SDees		06/05/23 17:23

Client Sample ID: AIEA GULCH WELLS PUMP 2
Lab Sample ID: 380-48562-2
Date Collected: 05/22/23 11:32
Matrix: Drinking Water
Date Received: 05/24/23 10:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			41917	N8NE	EA POM	05/27/23 15:01
Total/NA	Analysis	525.2		1	42146	UPAC	EA POM	05/31/23 12:32
Total/NA	Prep	EPA_625		1	O-41068_P			05/25/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-41068	YC		06/08/23 20:20
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39E14	SCerva		05/25/23 20:27
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSF003W	SDees		06/05/23 17:42

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Lab Sample ID: 380-48562-3
Date Collected: 05/22/23 11:05
Matrix: Drinking Water
Date Received: 05/24/23 10:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			41917	N8NE	EA POM	05/27/23 15:01
Total/NA	Analysis	525.2		1	42146	UPAC	EA POM	05/31/23 12:52
Total/NA	Prep	EPA_625		1	O-41068_P			05/25/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-41068	YC		06/08/23 22:07
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39E14	SCerva		05/25/23 21:03
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSF003W	SDees		06/05/23 18:01

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Lab Sample ID: 380-48562-4
Date Collected: 05/22/23 10:29
Matrix: Drinking Water
Date Received: 05/24/23 10:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			41917	N8NE	EA POM	05/27/23 16:51
Total/NA	Analysis	525.2		1	42146	UPAC	EA POM	05/31/23 13:12

Lab Chronicle

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

Job ID: 380-48562-1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-4
Matrix: Drinking Water
Date Collected: 05/22/23 10:29
Date Received: 05/24/23 10:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA_625		1	O-41068_P			05/25/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-41068	YC		06/08/23 23:53
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39E14	SCerva		05/25/23 21:38
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSF003W	SDees		06/05/23 18:19

Client Sample ID: TB: MOANALUA WELLS

Lab Sample ID: 380-48562-5
Matrix: Water
Date Collected: 05/22/23 10:02
Date Received: 05/24/23 10:18

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	23VG39E14	SCerva		05/25/23 22:14

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-48562-6
Matrix: Water
Date Collected: 05/22/23 11:32
Date Received: 05/24/23 10:18

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	23VG39E14	SCerva		05/25/23 23:26

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

Lab Sample ID: 380-48562-7
Matrix: Water
Date Collected: 05/22/23 11:05
Date Received: 05/24/23 10:18

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	23VG39E14	SCerva		05/26/23 00:02

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-48562-8
Matrix: Water
Date Collected: 05/22/23 10:29
Date Received: 05/24/23 10:18

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	23VG39E14	SCerva		05/26/23 00:38

Laboratory References:

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

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-48562-1

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	02-29-24

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

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

Job ID: 380-48562-1

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

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

Authority	Program	Identification Number	Expiration Date

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	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	Terbuthylazine
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: 380-48562-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
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 POM

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 POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Sample Summary

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

Job ID: 380-48562-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-48562-1	MOANALUA WELLS	Drinking Water	05/22/23 10:02	05/24/23 10:18	HI0000331
380-48562-2	AIEA GULCH WELLS PUMP 2	Drinking Water	05/22/23 11:32	05/24/23 10:18	HI0000331
380-48562-3	AIEA WELLS PUMPS 1&2 (260) P2	Drinking Water	05/22/23 11:05	05/24/23 10:18	HI0000331
380-48562-4	HALAWA WELLS UNITS 1 & 2 P1	Drinking Water	05/22/23 10:29	05/24/23 10:18	HI0000331
380-48562-5	TB: MOANALUA WELLS	Water	05/22/23 10:02	05/24/23 10:18	
380-48562-6	TB: AIEA GULCH WELLS PUMP 2	Water	05/22/23 11:32	05/24/23 10:18	
380-48562-7	TB: AIEA WELLS PUMPS 1&2 (260) P2	Water	05/22/23 11:05	05/24/23 10:18	
380-48562-8	TB: HALAWA WELLS UNITS 1 & 2 P1	Water	05/22/23 10:29	05/24/23 10:18	

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

Date: 06-13-2023
EMAX Batch No.: 23E193

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-48562

Enclosed is the Laboratory report for samples received on 05/25/23.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-48562-1	E193-01	05/22/23	WATER	TPH GASOLINE
				TPH
380-48562-2	E193-02	05/22/23	WATER	TPH GASOLINE
				TPH
380-48562-3	E193-03	05/22/23	WATER	TPH GASOLINE
				TPH
380-48562-4	E193-04	05/22/23	WATER	TPH GASOLINE
				TPH
380-48562-5	E193-05	05/22/23	WATER	TPH GASOLINE
380-48562-6	E193-06	05/22/23	WATER	TPH GASOLINE
380-48562-7	E193-07	05/22/23	WATER	TPH GASOLINE
380-48562-8	E193-08	05/22/23	WATER	TPH GASOLINE
380-48562-1MS	E193-01M	05/22/23	WATER	TPH GASOLINE
380-48562-1MSD	E193-01S	05/22/23	WATER	TPH GASOLINE

The results are summarized on the following pages.

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

Sincerely yours,

For CP

Caspar J. Pang
Laboratory Director

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

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

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

Chain of Custody Record

23E193 eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-55022.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: EMAX Laboratories Inc		Accreditations Required (See note): State - Hawaii		Job #: 380-48562-1
Address: 3051 Fujita Street, ,	Due Date Requested: 6/8/2023			
City: Torrance	TAT Requested (days):			
State, Zip: CA, 90505				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

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

	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)	SUB (8015 LL DRO/MRO/JP5/JP8)/ 8015 LL DRO/MRO/JP5/JP8	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
1	MOANALUA WELLS (380-48562-1)	5/22/23	10:02 Hawaiian		Water			X	X	6	See Attached Instructions
2	AIEA GULCH WELLS PUMP 2 (380-48562-2)	5/22/23	11:32 Hawaiian		Water			X	X	6	See Attached Instructions
3	AIEA WELLS PUMPS 1&2 (260) [P2] (380-48562-3)	5/22/23	11:05 Hawaiian		Water			X	X	6	See Attached Instructions
4	HALAWA WELLS UNITS 1 & 2 [P1] (380-48562-4)	5/22/23	10:29 Hawaiian		Water			X	X	6	See Attached Instructions
5	TB: MOANALUA WELLS (380-48562-5)	5/22/23	10:02 Hawaiian		Water			X		2	See Attached Instructions
6	TB: AIEA GULCH WELLS PUMP 2 (380-48562-6)	5/22/23	11:32 Hawaiian		Water			X		2	See Attached Instructions
7	TB: AIEA WELLS PUMPS 1&2 (260) [P2] (380-48562-7)	5/22/23	11:05 Hawaiian		Water			X		2	See Attached Instructions
8	TB: HALAWA WELLS UNITS 1 & 2 [P1] (380-48562-8)	5/22/23	10:29 Hawaiian		Water			X		2	See Attached Instructions

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

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

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	5/25/23 1205	[illegible]	[signature]	5/25/23 1205	EMAX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: Temp. 4.4/4.2 [CF: -0.2]

Page 51 of 133

7/11/2023

EMAX LABORATORIES, INC.

REFERENCE: EMAX-SM02 Rev. 12

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 23E193
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Jhowin Zamora
☐ EMAX Courier ☒ Client Delivery		Date 05/25/23 Time 12:05

COC INSPECTION

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

Note: _____

PACKAGING INSPECTION

Container	☒ Cooler	☐ Box	☐ Other		
Condition correction factor: -0.2	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☒ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☒ Cooler 1 4.4/4.2 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C
Thermometer:	(A) S/N 221052768	B - S/N 210760237	C - S/N _____	D - S/N _____	

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1-4	5,6,11,12,17,18,23,24	D1	JPS / JP8 not on label	R1
5,6,8	25,27,28,32	D22	2nd date reads 5/10/23	

05/25/23

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. MS 5/26/23

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? ☐ YES ☐ NO

LEGEND:

☐ Continue to next page.

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Sample Management
(D1)	Analysis is not indicated in label	D13	Out of Holding Time	R1	Proceed as indicated in ☐ COC ☐ Label
D2	Analysis mismatch COC vs label	D14	Bubble is >6mm	R2	Refer to attached instruction
D3	Sample ID mismatch COC vs label	D15	No trip blank in cooler	R3	Cancel the analysis
D4	Sample ID is not indicated in _____	D16	Preservation not indicated in _____	R4	Use vial with smallest bubble first
D5	Container -[improper] [leaking] [broken]	D17	Preservation mismatch COC vs label	R5	Log-in with latest sampling date and time+1 min
D6	Date/Time is not indicated in _____	D18	Insufficient chemical preservative	R6	Adjust pH as necessary
D7	Date/Time mismatch COC vs label	D19	Insufficient Sample	R7	Filter and preserved as necessary
D8	Sample listed in COC is not received	D20	No filtration info for dissolved analysis	R8	_____
D9	Sample received is not listed in COC	D21	No sample for moisture determination	R9	_____
D10	No initial/date on corrections in COC/label	(D22)	2nd Date on label is incorrect	R10	_____
D11	Container count mismatch COC vs received	D23	_____	R11	_____
D12	Container size mismatch COC vs received	D24	_____	R12	_____

REVIEWS:

Sample Labeling Maria Rivera — Date 05/25/23 | 5/25/23

SRF _____ — Date 5/25/23

PM _____ — Date 5/26/23

REPORTING CONVENTIONS

DATA QUALIFIERS:

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

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

ACRONYMS AND ABBREVIATIONS:

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

DATES

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-48562

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

SDG#: 23E193

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-48562

SDG : 23E193

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

A total of eight(8) water samples were received on 05/25/23 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VG39E14B - 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. VG39E14L/VG39E14C 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 E193-01M/E193-01S. Refer to Matrix QC summary form for details.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
Project : 380-48562

SDG NO. : 23E193
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VG39E14B	1	NA	05/25/2316:52	05/25/2316:52	EE25005A	EE25004A	23VG39E14	Method Blank
LCS1W	VG39E14L	1	NA	05/25/2317:28	05/25/2317:28	EE25006A	EE25004A	23VG39E14	Lab Control Sample (LCS)
LCD1W	VG39E14C	1	NA	05/25/2318:03	05/25/2318:03	EE25007A	EE25004A	23VG39E14	LCS Duplicate
380-48562-1	E193-01	1	NA	05/25/2318:39	05/25/2318:39	EE25008A	EE25004A	23VG39E14	Field Sample
380-48562-1MS	E193-01M	1	NA	05/25/2319:15	05/25/2319:15	EE25009A	EE25004A	23VG39E14	Matrix Spike Sample (MS)
380-48562-1MSD	E193-01S	1	NA	05/25/2319:51	05/25/2319:51	EE25010A	EE25004A	23VG39E14	MS Duplicate (MSD)
380-48562-2	E193-02	1	NA	05/25/2320:27	05/25/2320:27	EE25011A	EE25004A	23VG39E14	Field Sample
380-48562-3	E193-03	1	NA	05/25/2321:03	05/25/2321:03	EE25012A	EE25004A	23VG39E14	Field Sample
380-48562-4	E193-04	1	NA	05/25/2321:38	05/25/2321:38	EE25013A	EE25004A	23VG39E14	Field Sample
380-48562-5	E193-05	1	NA	05/25/2322:14	05/25/2322:14	EE25014A	EE25004A	23VG39E14	Field Sample
380-48562-6	E193-06	1	NA	05/25/2323:26	05/25/2323:26	EE25016A	EE25015A	23VG39E14	Field Sample
380-48562-7	E193-07	1	NA	05/26/2300:02	05/26/2300:02	EE25017A	EE25015A	23VG39E14	Field Sample
380-48562-8	E193-08	1	NA	05/26/2300:38	05/26/2300:38	EE25018A	EE25015A	23VG39E14	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:02
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 18:39
Sample ID	: 380-48562-1	Date Analyzed:	05/25/23 18:39
Lab Samp ID:	E193-01	Dilution Factor:	1
Lab File ID:	EE25008A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromofluorobenzene	0.0323	0.0400	81	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:32
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 20:27
Sample ID	: 380-48562-2	Date Analyzed:	05/25/23 20:27
Lab Samp ID:	E193-02	Dilution Factor:	1
Lab File ID:	EE25011A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0318	0.0400	80	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:05
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 21:03
Sample ID	: 380-48562-3	Date Analyzed:	05/25/23 21:03
Lab Samp ID:	E193-03	Dilution Factor:	1
Lab File ID:	EE25012A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0326	0.0400	82	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:	05/22/23 10:29
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 21:38
Sample ID	: 380-48562-4	Date Analyzed:	05/25/23 21:38
Lab Samp ID:	E193-04	Dilution Factor:	1
Lab File ID:	EE25013A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0325	0.0400	81	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:02
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 22:14
Sample ID	: 380-48562-5	Date Analyzed:	05/25/23 22:14
Lab Samp ID:	E193-05	Dilution Factor:	1
Lab File ID:	EE25014A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0311	0.0400	78	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:32
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 23:26
Sample ID	: 380-48562-6	Date Analyzed:	05/25/23 23:26
Lab Samp ID:	E193-06	Dilution Factor:	1
Lab File ID:	EE25016A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25015A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0315	0.0400	79	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 5ml	Final Volume :	5ml
Prepared by	: SCerva	Analyzed by :	SCerva

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:05
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/26/23 00:02
Sample ID	: 380-48562-7	Date Analyzed:	05/26/23 00:02
Lab Samp ID:	E193-07	Dilution Factor:	1
Lab File ID:	EE25017A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25015A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0327	0.0400	82	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:	05/22/23 10:29
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/26/23 00:38
Sample ID	: 380-48562-8	Date Analyzed:	05/26/23 00:38
Lab Samp ID:	E193-08	Dilution Factor:	1
Lab File ID:	EE25018A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25015A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0302	0.0400	76	60-140

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

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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/25/23 16:52
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	05/25/23 16:52
Sample ID	: MBLK1W	Date Analyzed:	05/25/23 16:52
Lab Samp ID:	VG39E14B	Dilution Factor:	1
Lab File ID:	EE25005A	Matrix:	WATER
Ext Btch ID:	23VG39E14	% Moisture:	NA
Calib. Ref.:	EE25004A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0324	0.0400	81	60-140

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-48562
BATCH NO. : 23E193
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VG39E14B	VG39E14L	VG39E14C
LAB FILE ID	: EE25005A	EE25006A	EE25007A
DATE PREPARED	: 05/25/23 16:52	05/25/23 17:28	05/25/23 18:03
DATE ANALYZED	: 05/25/23 16:52	05/25/23 17:28	05/25/23 18:03
PREP BATCH	: 23VG39E14	23VG39E14	23VG39E14
CALIBRATION REF	: EE25004A	EE25004A	EE25004A

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	0.427	85	0.500	0.437	87	2	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0395	99	0.0400	0.0397	99	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 : 380-48562
BATCH NO. : 23E193
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-48562-1	380-48562-1MS	380-48562-1MSD
LAB SAMPLE ID	: E193-01	E193-01M	E193-01S
LAB FILE ID	: EE25008A	EE25009A	EE25010A
DATE PREPARED	: 05/25/23 18:39	05/25/23 19:15	05/25/23 19:51
DATE ANALYZED	: 05/25/23 18:39	05/25/23 19:15	05/25/23 19:51
PREP BATCH	: 23VG39E14	23VG39E14	23VG39E14
CALIBRATION REF	: EE25004A	EE25004A	EE25004A

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	0.427	85	0.500	0.461	92	8	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0394	99	0.0400	0.0443	111	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-48562

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23E193

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-48562

SDG : 23E193

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 05/25/23 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSF003WB - 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. DSF003WL/DSF003WC were within LCS limits. Refer to LCS summary form for details.

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

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-48562

SDG : 23E193

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 05/25/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSF003WB - 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. J5F003WL/J5F003WC were within LCS limits. Refer to LCS summary form for details.

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

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-48562

SDG : 23E193

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 05/25/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSF003WB - 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. J8F003WL/J8F003WC were within LCS limits. Refer to LCS summary form for details.

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

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-48562

SDG NO. : 23E193
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF003WB	1	NA	06/05/2315:13	06/02/2315:15	LF05010A	LF05004A	23DSF003W	Method Blank
LCS1W	DSF003WL	1	NA	06/05/2315:31	06/02/2315:15	LF05011A	LF05004A	23DSF003W	Lab Control Sample (LCS)
LCD1W	DSF003WC	1	NA	06/05/2315:50	06/02/2315:15	LF05012A	LF05004A	23DSF003W	LCS Duplicate
380-48562-1	E193-01	1	NA	06/05/2317:23	06/02/2315:15	LF05017A	LF05004A	23DSF003W	Field Sample
380-48562-2	E193-02	1	NA	06/05/2317:42	06/02/2315:15	LF05018A	LF05004A	23DSF003W	Field Sample
380-48562-3	E193-03	1	NA	06/05/2318:01	06/02/2315:15	LF05019A	LF05004A	23DSF003W	Field Sample
380-48562-4	E193-04	1	NA	06/05/2318:19	06/02/2315:15	LF05020A	LF05004A	23DSF003W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-48562

SDG NO. : 23E193
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF003WB	1	NA	06/05/2315:13	06/02/2315:15	LF05010A	LF05005A	23DSF003W	Method Blank
LCS1W	J5F003WL	1	NA	06/05/2316:09	06/02/2315:15	LF05013A	LF05005A	23DSF003W	Lab Control Sample (LCS)
LCD1W	J5F003WC	1	NA	06/05/2316:27	06/02/2315:15	LF05014A	LF05005A	23DSF003W	LCS Duplicate
380-48562-1	E193-01	1	NA	06/05/2317:23	06/02/2315:15	LF05017A	LF05005A	23DSF003W	Field Sample
380-48562-2	E193-02	1	NA	06/05/2317:42	06/02/2315:15	LF05018A	LF05005A	23DSF003W	Field Sample
380-48562-3	E193-03	1	NA	06/05/2318:01	06/02/2315:15	LF05019A	LF05005A	23DSF003W	Field Sample
380-48562-4	E193-04	1	NA	06/05/2318:19	06/02/2315:15	LF05020A	LF05005A	23DSF003W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-48562

SDG NO. : 23E193
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF003WB	1	NA	06/05/2315:13	06/02/2315:15	LF05010A	LF05006A	23DSF003W	Method Blank
LCS1W	J8F003WL	1	NA	06/05/2316:46	06/02/2315:15	LF05015A	LF05006A	23DSF003W	Lab Control Sample (LCS)
LCD1W	J8F003WC	1	NA	06/05/2317:05	06/02/2315:15	LF05016A	LF05006A	23DSF003W	LCS Duplicate
380-48562-1	E193-01	1	NA	06/05/2317:23	06/02/2315:15	LF05017A	LF05006A	23DSF003W	Field Sample
380-48562-2	E193-02	1	NA	06/05/2317:42	06/02/2315:15	LF05018A	LF05006A	23DSF003W	Field Sample
380-48562-3	E193-03	1	NA	06/05/2318:01	06/02/2315:15	LF05019A	LF05006A	23DSF003W	Field Sample
380-48562-4	E193-04	1	NA	06/05/2318:19	06/02/2315:15	LF05020A	LF05006A	23DSF003W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:02
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-1	Date Analyzed:	06/05/23 17:23
Lab Samp ID:	23E193-01	Dilution Factor:	1
Lab File ID:	LF05017A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05004A	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	0.420	0.530	79	60-130
Hexacosane	0.130	0.132	98	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:02
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-1	Date Analyzed:	06/05/23 17:23
Lab Samp ID:	23E193-01	Dilution Factor:	1
Lab File ID:	LF05017A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.053	0.027	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromobenzene	0.420	0.530	79	60-130
Hexacosane	0.130	0.132	98	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP5 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 940ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:02
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-1	Date Analyzed:	06/05/23 17:23
Lab Samp ID:	23E193-01	Dilution Factor:	1
Lab File ID:	LF05017A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05006A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.053	0.027	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromobenzene	0.420	0.530	79	60-130
Hexacosane	0.130	0.132	98	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP8 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 940ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:32
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-2	Date Analyzed:	06/05/23 17:42
Lab Samp ID:	23E193-02	Dilution Factor:	1
Lab File ID:	LF05018A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05004A	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	0.423	0.545	78	60-130
Hexacosane	0.138	0.136	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	: 920ml	Final Volume :	5ml
Prepared by	: RGalan	Analyzed by :	SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:32
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-2	Date Analyzed:	06/05/23 17:42
Lab Samp ID:	23E193-02	Dilution Factor:	1
Lab File ID:	LF05018A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.055	0.027	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromobenzene	0.423	0.545	78	60-130
Hexacosane	0.138	0.136	101	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 920ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:32
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-2	Date Analyzed:	06/05/23 17:42
Lab Samp ID:	23E193-02	Dilution Factor:	1
Lab File ID:	LF05018A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05006A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.055	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.423	0.545	78	60-130
Hexacosane	0.138	0.136	101	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP8 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 920ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:05
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-3	Date Analyzed:	06/05/23 18:01
Lab Samp ID:	23E193-03	Dilution Factor:	1
Lab File ID:	LF05019A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05004A	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	0.430	0.530	81	60-130
Hexacosane	0.138	0.132	104	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:05
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-3	Date Analyzed:	06/05/23 18:01
Lab Samp ID:	23E193-03	Dilution Factor:	1
Lab File ID:	LF05019A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.053	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.430	0.530	81	60-130
Hexacosane	0.138	0.132	104	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP5 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 940ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 11:05
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-3	Date Analyzed:	06/05/23 18:01
Lab Samp ID:	23E193-03	Dilution Factor:	1
Lab File ID:	LF05019A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05006A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.053	0.027	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromobenzene	0.430	0.530	81	60-130
Hexacosane	0.138	0.132	104	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP8 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 940ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:29
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-4	Date Analyzed:	06/05/23 18:19
Lab Samp ID:	23E193-04	Dilution Factor:	1
Lab File ID:	LF05020A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05004A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.028	0.014
Motor Oil	ND	0.056	0.028

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.454	0.555	82	60-130
Hexacosane	0.153	0.139	110	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	: 900ml	Final Volume :	5ml
Prepared by	: RGalan	Analyzed by :	SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:29
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-4	Date Analyzed:	06/05/23 18:19
Lab Samp ID:	23E193-04	Dilution Factor:	1
Lab File ID:	LF05020A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.056	0.028

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.454	0.555	82	60-130
Hexacosane	0.153	0.139	110	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP5 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 900ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	05/22/23 10:29
Project	: 380-48562	Date Received:	05/25/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: 380-48562-4	Date Analyzed:	06/05/23 18:19
Lab Samp ID:	23E193-04	Dilution Factor:	1
Lab File ID:	LF05020A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05006A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.056	0.028

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.454	0.555	82	60-130
Hexacosane	0.153	0.139	110	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP8 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 900ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	06/02/23 15:15
Project	: 380-48562	Date Received:	06/02/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: MBLK1W	Date Analyzed:	06/05/23 15:13
Lab Samp ID:	DSF003WB	Dilution Factor:	1
Lab File ID:	LF05010A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05004A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.025	0.012
Motor Oil	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.346	0.500	69	60-130
Hexacosane	0.126	0.125	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	: 1000ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-48562
BATCH NO. : 23E193
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSF003WB	DSF003WL	DSF003WC
LAB FILE ID	: LF05010A	LF05011A	LF05012A
DATE PREPARED	: 06/02/23 15:15	06/02/23 15:15	06/02/23 15:15
DATE ANALYZED	: 06/05/23 15:13	06/05/23 15:31	06/05/23 15:50
PREP BATCH	: 23DSF003W	23DSF003W	23DSF003W
CALIBRATION REF	: LF05004A	LF05004A	LF05004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	1.72	69	2.50	1.97	79	14	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.309	62	0.500	0.399	80	60-130
Hexacosane	0.125	0.123	98	0.125	0.131	105	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	06/02/23 15:15
Project	: 380-48562	Date Received:	06/02/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: MBLK1W	Date Analyzed:	06/05/23 15:13
Lab Samp ID:	DSF003WB	Dilution Factor:	1
Lab File ID:	LF05010A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.346	0.500	69	60-130
Hexacosane	0.126	0.125	101	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-48562
BATCH NO. : 23E193
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSF003WB	J5F003WL	J5F003WC
LAB FILE ID	: LF05010A	LF05013A	LF05014A
DATE PREPARED	: 06/02/23 15:15	06/02/23 15:15	06/02/23 15:15
DATE ANALYZED	: 06/05/23 15:13	06/05/23 16:09	06/05/23 16:27
PREP BATCH	: 23DSF003W	23DSF003W	23DSF003W
CALIBRATION REF	: LF05005A	LF05005A	LF05005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.50	1.79	72	2.50	1.87	75	4	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.382	76	0.500	0.378	76	60-130
Hexacosane	0.125	0.127	102	0.125	0.117	94	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	06/02/23 15:15
Project	: 380-48562	Date Received:	06/02/23
Batch No.	: 23E193	Date Extracted:	06/02/23 15:15
Sample ID	: MBLK1W	Date Analyzed:	06/05/23 15:13
Lab Samp ID:	DSF003WB	Dilution Factor:	1
Lab File ID:	LF05010A	Matrix:	WATER
Ext Btch ID:	23DSF003W	% Moisture:	NA
Calib. Ref.:	LF05006A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.346	0.500	69	60-130
Hexacosane	0.126	0.125	101	60-130

Notes:
RL : Reporting Limit
Parameter H-C Range
JP8 C8-C18
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-48562
BATCH NO. : 23E193
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSF003WB	J8F003WL	J8F003WC
LAB FILE ID	: LF05010A	LF05015A	LF05016A
DATE PREPARED	: 06/02/23 15:15	06/02/23 15:15	06/02/23 15:15
DATE ANALYZED	: 06/05/23 15:13	06/05/23 16:46	06/05/23 17:05
PREP BATCH	: 23DSF003W	23DSF003W	23DSF003W
CALIBRATION REF	: LF05006A	LF05006A	LF05006A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.50	2.14	86	2.50	2.31	92	8	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.442	88	0.500	0.426	85	60-130
Hexacosane	0.125	0.131	105	0.125	0.141	113	60-130

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

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

June 09, 2023

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

Project Name: RED-HILL Project # 38001111 Job # 380-48562-1
Physis Project ID: 1407003-406

Dear Rachelle,

Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 5/25/2023. A total of 4 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: 1407003-406

RED-HILL Project # 38001111 Job # 380-48562-1

Total Samples: 4

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
106793	MOANALUA WELLS	380-48562-1	5/22/2023	10:02	Samplewater	Not Specified
106794	AIEA GULCH WELLS PUMP 2	380-48562-2	5/22/2023	11:32	Samplewater	Not Specified
106795	AIEA WELLS PUMS 1&2 (260)	380-48562-3	5/22/2023	11:05	Samplewater	Not Specified
106796	HALAWA WELLS UNITS 1 & 2(P1)	380-48562-4	5/22/2023	10:29	Samplewater	Not Specified

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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.

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 106793-R1	**MOANALUA WELLS 380-48562-1**	**Matrix:**	**Samplewater**				**Sampled:**	**22-May-23 10:02**		**Received:**	**25-May-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-41068	25-May-23	08-Jun-23
Sample ID: 106794-R1	**AIEA GULCH WELLS PUMP 2 380-4**	**Matrix:**	**Samplewater**				**Sampled:**	**22-May-23 11:32**		**Received:**	**25-May-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-41068	25-May-23	08-Jun-23
Sample ID: 106795-R1	**AIEA WELLS PUMS 1&2 (260) 380-4**	**Matrix:**	**Samplewater**				**Sampled:**	**22-May-23 11:05**		**Received:**	**25-May-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-41068	25-May-23	08-Jun-23
Sample ID: 106796-R1	**HALAWA WELLS UNITS 1 & 2(P1) 3**	**Matrix:**	**Samplewater**				**Sampled:**	**22-May-23 10:29**		**Received:**	**25-May-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-41068	25-May-23	08-Jun-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 106793-R1	**MOANALUA WELLS 380-48562-1**		**Matrix: Samplewater**				**Sampled: 22-May-23 10:02**			**Received: 25-May-23**	
(d10-Acenaphthene)	EPA 625.1	% Recovery	86	1			Total		O-41068	25-May-23	08-Jun-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	88	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Chrysene)	EPA 625.1	% Recovery	87	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Perylene)	EPA 625.1	% Recovery	83	1			Total		O-41068	25-May-23	08-Jun-23
(d8-Naphthalene)	EPA 625.1	% Recovery	78	1			Total		O-41068	25-May-23	08-Jun-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

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-41068	25-May-23	08-Jun-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 106794-R1	**AIEA GULCH WELLS PUMP 2 380-4**	**Matrix: Samplewater**					**Sampled: 22-May-23 11:32**			**Received: 25-May-23**	
(d10-Acenaphthene)	EPA 625.1	% Recovery	89	1			Total		O-41068	25-May-23	08-Jun-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	90	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Chrysene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Perylene)	EPA 625.1	% Recovery	87	1			Total		O-41068	25-May-23	08-Jun-23
(d8-Naphthalene)	EPA 625.1	% Recovery	80	1			Total		O-41068	25-May-23	08-Jun-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

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-41068	25-May-23	08-Jun-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 106795-R1	**AIEA WELLS PUMS 1&2 (260) 380-4 Matrix: Samplewater**							**Sampled: 22-May-23 11:05**		**Received: 25-May-23**	
(d10-Acenaphthene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Chrysene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Perylene)	EPA 625.1	% Recovery	87	1			Total		O-41068	25-May-23	08-Jun-23
(d8-Naphthalene)	EPA 625.1	% Recovery	81	1			Total		O-41068	25-May-23	08-Jun-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

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-41068	25-May-23	08-Jun-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 106796-R1	**HALAWA WELLS UNITS 1 & 2(P1) 3**	**Matrix: Samplewater**					**Sampled: 22-May-23 10:29**			**Received:**	**25-May-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	89	1			Total		O-41068	25-May-23	08-Jun-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Chrysene)	EPA 625.1	% Recovery	91	1			Total		O-41068	25-May-23	08-Jun-23
(d12-Perylene)	EPA 625.1	% Recovery	88	1			Total		O-41068	25-May-23	08-Jun-23
(d8-Naphthalene)	EPA 625.1	% Recovery	82	1			Total		O-41068	25-May-23	08-Jun-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

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-41068	25-May-23	08-Jun-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-41068	25-May-23	08-Jun-23

QUALITY CONTROL REPORT

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 106792-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
	Method: EPA 625.1					Batch ID: O-41068		Prepared: 25-May-23			Analyzed: 08-Jun-23			
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L								
Sample ID: 106792-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
	Method: EPA 625.1					Batch ID: O-41068		Prepared: 25-May-23			Analyzed: 08-Jun-23			
Disalicylidenepropanediamin	Total	22.3	1	0.05	0.1	µg/L	25	0	89	50 - 150% PASS				
Sample ID: 106792-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
	Method: EPA 625.1					Batch ID: O-41068		Prepared: 25-May-23			Analyzed: 08-Jun-23			
Disalicylidenepropanediamin	Total	23.7	1	0.05	0.1	µg/L	25	0	95	50 - 150% PASS		7	30 PASS	

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 106792-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-41068		Prepared: 25-May-23				Analyzed: 08-Jun-23	
(d10-Acenaphthene)	Total	91	1			% Recovery	100	91	27 - 133%	PASS			
(d10-Phenanthrene)	Total	92	1			% Recovery	100	92	43 - 129%	PASS			
(d12-Chrysene)	Total	91	1			% Recovery	100	91	52 - 144%	PASS			
(d12-Perylene)	Total	92	1			% Recovery	100	92	36 - 161%	PASS			
(d8-Naphthalene)	Total	84	1			% Recovery	100	84	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							

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Fluorene	Total	ND	1	0.001	0.005	µg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L							
Naphthalene	Total	ND	1	0.001	0.005	µg/L							
Perylene	Total	ND	1	0.001	0.005	µg/L							
Phenanthrene	Total	ND	1	0.001	0.005	µg/L							
Pyrene	Total	ND	1	0.001	0.005	µg/L							

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 106792-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-41068		Prepared: 25-May-23				Analyzed: 08-Jun-23	
(d10-Acenaphthene)	Total	85	1			% Recovery	100	0	85	27 - 133%	PASS		
(d10-Phenanthrene)	Total	88	1			% Recovery	100	0	88	43 - 129%	PASS		
(d12-Chrysene)	Total	90	1			% Recovery	100	0	90	52 - 144%	PASS		
(d12-Perylene)	Total	89	1			% Recovery	100	0	89	36 - 161%	PASS		
(d8-Naphthalene)	Total	75	1			% Recovery	100	0	75	25 - 125%	PASS		
1-Methylnaphthalene	Total	0.421	1	0.001	0.005	µg/L	0.5	0	84	31 - 128%	PASS		
1-Methylphenanthrene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.453	1	0.001	0.005	µg/L	0.5	0	91	55 - 122%	PASS		
2,6-Dimethylnaphthalene	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	48 - 120%	PASS		
2-Methylnaphthalene	Total	0.417	1	0.001	0.005	µg/L	0.5	0	83	47 - 130%	PASS		
Acenaphthene	Total	0.45	1	0.001	0.005	µg/L	0.5	0	90	53 - 131%	PASS		
Acenaphthylene	Total	0.452	1	0.001	0.005	µg/L	0.5	0	90	43 - 140%	PASS		
Anthracene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	58 - 135%	PASS		
Benz[a]anthracene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	55 - 145%	PASS		
Benzo[a]pyrene	Total	0.447	1	0.001	0.005	µg/L	0.5	0	89	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	0.511	1	0.001	0.005	µg/L	0.5	0	102	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.489	1	0.001	0.005	µg/L	0.5	0	98	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	0.502	1	0.001	0.005	µg/L	0.5	0	100	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	0.501	1	0.001	0.005	µg/L	0.5	0	100	56 - 145%	PASS		
Biphenyl	Total	0.445	1	0.001	0.005	µg/L	0.5	0	89	56 - 119%	PASS		
Chrysene	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	0.526	1	0.001	0.005	µg/L	0.5	0	105	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	0.572	1	0.001	0.005	µg/L	0.5	0	114	50 - 150%	PASS		
Dibenzothiophene	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	46 - 126%	PASS		

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Fluoranthene	Total	0.483	1	0.001	0.005	µg/L	0.5	0	97	60 - 146%	PASS			
Fluorene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	0.519	1	0.001	0.005	µg/L	0.5	0	104	50 - 151%	PASS			
Naphthalene	Total	0.4	1	0.001	0.005	µg/L	0.5	0	80	41 - 126%	PASS			
Perylene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	48 - 141%	PASS			
Phenanthrene	Total	0.47	1	0.001	0.005	µg/L	0.5	0	94	67 - 127%	PASS			
Pyrene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	54 - 156%	PASS			

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 106792-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-41068		Prepared: 25-May-23				Analyzed: 08-Jun-23		
(d10-Acenaphthene)	Total	87	1			% Recovery	100	0	87	27 - 133%	PASS	2	30	PASS
(d10-Phenanthrene)	Total	88	1			% Recovery	100	0	88	43 - 129%	PASS	0	30	PASS
(d12-Chrysene)	Total	90	1			% Recovery	100	0	90	52 - 144%	PASS	0	30	PASS
(d12-Perylene)	Total	90	1			% Recovery	100	0	90	36 - 161%	PASS	1	30	PASS
(d8-Naphthalene)	Total	81	1			% Recovery	100	0	81	25 - 125%	PASS	8	30	PASS
1-Methylnaphthalene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	31 - 128%	PASS	5	30	PASS
1-Methylphenanthrene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	66 - 127%	PASS	0	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.47	1	0.001	0.005	µg/L	0.5	0	94	55 - 122%	PASS	3	30	PASS
2,6-Dimethylnaphthalene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	48 - 120%	PASS	3	30	PASS
2-Methylnaphthalene	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	47 - 130%	PASS	7	30	PASS
Acenaphthene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	53 - 131%	PASS	3	30	PASS
Acenaphthylene	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	43 - 140%	PASS	3	30	PASS
Anthracene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	58 - 135%	PASS	1	30	PASS
Benz[a]anthracene	Total	0.501	1	0.001	0.005	µg/L	0.5	0	100	55 - 145%	PASS	1	30	PASS
Benzo[a]pyrene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	51 - 143%	PASS	8	30	PASS
Benzo[b]fluoranthene	Total	0.511	1	0.001	0.005	µg/L	0.5	0	102	46 - 165%	PASS	0	30	PASS
Benzo[e]pyrene	Total	0.49	1	0.001	0.005	µg/L	0.5	0	98	42 - 152%	PASS	0	30	PASS
Benzo[g,h,i]perylene	Total	0.497	1	0.001	0.005	µg/L	0.5	0	99	63 - 133%	PASS	1	30	PASS
Benzo[k]fluoranthene	Total	0.514	1	0.001	0.005	µg/L	0.5	0	103	56 - 145%	PASS	3	30	PASS
Biphenyl	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	56 - 119%	PASS	3	30	PASS
Chrysene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	56 - 141%	PASS	1	30	PASS
Dibenz[a,h]anthracene	Total	0.531	1	0.001	0.005	µg/L	0.5	0	106	55 - 150%	PASS	1	30	PASS
Dibenzo[a,l]pyrene	Total	0.568	1	0.001	0.005	µg/L	0.5	0	114	50 - 150%	PASS	0	30	PASS
Dibenzothiophene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	46 - 126%	PASS	1	30	PASS

PHYSIS Project ID: 1407003-406
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-48562-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Fluoranthene	Total	0.486	1	0.001	0.005	µg/L	0.5	0	97	60 - 146%	PASS	0	30 PASS	
Fluorene	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	58 - 131%	PASS	1	30 PASS	
Indeno[1,2,3-cd]pyrene	Total	0.523	1	0.001	0.005	µg/L	0.5	0	105	50 - 151%	PASS	1	30 PASS	
Naphthalene	Total	0.433	1	0.001	0.005	µg/L	0.5	0	87	41 - 126%	PASS	8	30 PASS	
Perylene	Total	0.462	1	0.001	0.005	µg/L	0.5	0	92	48 - 141%	PASS	2	30 PASS	
Phenanthrene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	67 - 127%	PASS	0	30 PASS	
Pyrene	Total	0.48	1	0.001	0.005	µg/L	0.5	0	96	54 - 156%	PASS	1	30 PASS	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample ID: 106793

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.0093	7.3478	1111	Anthracene-D10-	1719-06-8	96
			No TICs met the search criteria for this sample.		

Concentration estimated using the response for Anthracene-d10

Sample ID: 106794

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.0094	8.2318	1111	Anthracene-D10-	1719-06-8	96
			No TICs met the search criteria for this sample.		

Concentration estimated using the response for Anthracene-d10

Sample ID: 106795

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.0088	8.1020	1111	Anthracene-D10-	1719-06-8	96
			No TICs met the search criteria for this sample.		

Concentration estimated using the response for Anthracene-d10

Sample ID: 106796

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.0101	7.2196	1111	Anthracene-D10-	1719-06-8	96
			No TICs met the search criteria for this sample.		

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank B1_41068

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.0045	8.1283	1111	Anthracene-D10-	1517-22-2	94
27.1679	1.2529	171	Diethyl Phthalate	84-66-2	98

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-55025.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Physis Environmental Laboratories		Accreditations Required (See note): State - Hawaii		Job #: 380-48562-1
Address: 1904 Wright Circle, ,	Due Date Requested: 6/8/2023			
City: Anaheim	TAT Requested (days):			
State, Zip: CA, 92806				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MOANALUA WELLS (380-48562-1)	5/22/23	10:02 Hawaiian		Water			X	2	See Attached Instructions
AIEA GULCH WELLS PUMP 2 (380-48562-2)	5/22/23	11:32 Hawaiian		Water			X	2	See Attached Instructions
AIEA WELLS PUMPS 1&2 (260) [P2] (380-48562-3)	5/22/23	11:05 Hawaiian		Water			X	2	See Attached Instructions
HALAWA WELLS UNITS 1 & 2 [P1] (380-48562-4)	5/22/23	10:29 Hawaiian		Water			X	2	See Attached Instructions

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

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

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/25/23 1003	[illegible]	[signature]	5/26/23 15:04	Physis
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

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

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Project Iteration ID: 1407003-406
Client Name: Eurofins Eaton Analytical
Project Name: RED-HILL Project # 38001111 Job # 380-48562-1
COC Page Number: 2 of 2
Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: BH
2. Date Received: 5/25/23
3. Time Received: 15:04
4. Client Name: Eurofins
5. Courier Information: (Please circle)
   - (Client) • UPS • Area Fast • DRS
   - FedEx • GSO/GLS • Ontrac • PAMS
   - PHYSIS Driver:
     - i. Start Time:_____ iii. Total Mileage:_____
     - ii. End Time:_____ iv. Number of Pickups:_____
6. Container Information: (Please put the # of containers or circle none)
   - 1 Cooler • __ Styrofoam Cooler • ____ Boxes • None
   - ___ Carboy(s) • __Carboy Trash Can(s) • ____ Carboy Cap(s) • Other _____
7. What type of ice was used: (Please circle any that apply)
   (Wet Ice) • Blue Ice • Dry Ice • Water • None
8. Randomly Selected Samples Temperature (°C): 1.2 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: RGH

Sample Integrity Upon Receipt:

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

Notes:

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Dr. Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: City & County of Honolulu	PWSID:	Analysis Requested		Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other:
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: ☐ No			
Phone: 808-748-5091 (tel)	PO #: C20525101 exp 05312023			
Email: rfenstemacher@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA	Y	N		
MOANALUA WELLS	22-May-2023	1002	G	Water			2		2	2	4				
AIEA GULCH WELLS PUMP2	22-May-2023	1132	G	Water			2		2	2	4				
AIEA WELLS PUMPS 1&2 (260) P2	22-May-2023	1105	G	Water			2		2	2	4				
HALAWA WELLS UNITS 1&2 P1	22-May-2023	1029	G	Water			2		2	2	4				
TB MOANALUA WELLS	22-May-2023	1002		Water							2				
TB AIEA GULCH WELLS PUMP2	22-May-2023	1132		Water							2				
TB AIEA WELLS PUMPS 1&2 (260)	22-May-2023	1105		Water							2				
TB HALAWA WELLS UNITS 1&2	22-May-2023	1029		Water							2				

380-48562 COC

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

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

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

Special Instructions/QC Requirements: 1-7722 3026 0615

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: FEDEX-7722 3026 1004

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
BAILEY	5/23/2023 1400	HBWS	G. REITNER	05/24/2023 10:18	EEA
	Date/Time:	Company	Received by:	Date/Time:	Company
	Date/Time:	Company	Received by:	Date/Time:	Company

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Dr. Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:	Analysis Requested		Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5091 (tel)	PO #: C20525101 exp 05312023			
Email: rfenstemacher@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA	Y	N		
MOANALUA WELLS	22-May-2023	1002	G	Water								3	3		
AIEA GULCH WELLS PUMP2	22-May-2023	1132	G	Water								3	3		
AIEA WELLS PUMPS 1&2 (260) P2	22-May-2023	1105	G	Water								3	3		
HALAWA WELLS UNITS 1&2 P1	22-May-2023	1029	G	Water								3	3		
FB MOANALUA WELLS	22-May-2023	1002		Water								1	1		
FB AIEA GULCH WELLS PUMP2	22-May-2023	1132		Water								1	1		
FB AIEA WELLS PUMPS 1&2 (260)	22-May-2023	1105		Water								1	1		
FB HALAWA WELLS UNITS 1&2	22-May-2023	1029		Water								1	1		

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

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

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

Special Instructions/QC Requirements: 1- 7722 3026 0615

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: FEDEX 2-7722 3026 1004

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
BAILEY	5/23/2023 1400	HBWS	G.REITNER	05/24/2023 10:18	EEA

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-48562-1

Login Number: 48562
List Number: 1
Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	