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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/28/2022 8:25:02 PM

JOB DESCRIPTION

Rush Weekly RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-28636-1

Eurofins Eaton Monrovia

Job Notes

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

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

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

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

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

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

Compliance Statement

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

Authorization



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Authorized for release by
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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	10
Surrogate Summary	11
QC Sample Results	14
QC Association Summary	29
Lab Chronicle	31
Certification Summary	32
Method Summary	34
Sample Summary	35
Subcontract Data	36
Chain of Custody	83
Receipt Checklists	87

Definitions/Glossary

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

Job ID: 380-28636-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-28636-1

Job ID: 380-28636-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-28636-1

Comments

No additional comments.

Receipt

The samples were received on 11/17/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS Semi VOA

Method 525.2: The continuing calibration verification (CCV) associated with batch 380-25254 recovered above the upper control limit for Benzo[g,h,i]perylene, Dibenzo(a,h)anthracene and Indeno[1,2,3-cd]pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 525.2: The laboratory control sample duplicate (LCSD) for preparation batch 380-25142 and analytical batch 380-25254 recovered above upper control limits for the following analyte: Benzo[g,h,i]perylene. This analyte was biased high in the LCSD : was not detected in the associated samples; therefore, the data have been reported.

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

Subcontract non-Sister

See attached subcontract report.

Organic Prep

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

Subcontract Work

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

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

Detection Summary

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-28636-1

No Detections.

Client Sample ID: TB:MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-2

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-1

Date Collected: 11/15/22 10:31

Matrix: Drinking Water

Date Received: 11/17/22 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2,4'-DDD	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2,4'-DDE	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2,4'-DDT	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2,4-Dinitrotoluene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2,6-Dinitrotoluene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
2-Methylnaphthalene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
4,4'-DDD	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
4,4'-DDE	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
4,4'-DDT	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Acenaphthene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Acenaphthylene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Acetochlor	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Alachlor	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
alpha-BHC	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
alpha-Chlordane	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Anthracene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 14:19	1
Atrazine	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Benz(a)anthracene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Benzo[a]pyrene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 14:19	1
Benzo[b]fluoranthene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 14:19	1
Benzo[g,h,i]perylene	ND	*	0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Benzo[k]fluoranthene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 14:19	1
beta-BHC	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		11/27/22 10:25	11/29/22 14:19	1
Bromacil	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Butachlor	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Butylbenzylphthalate	ND		0.50	ug/L		11/27/22 10:25	11/29/22 14:19	1
Chlorobenzilate	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Chloroneb	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Chlorpyrifos	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Chrysene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 14:19	1
delta-BHC	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		11/27/22 10:25	11/29/22 14:19	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Diclorvos (DDVP)	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Dieldrin	ND		0.20	ug/L		11/27/22 10:25	11/29/22 14:19	1
Diethylphthalate	ND		0.50	ug/L		11/27/22 10:25	11/29/22 14:19	1
Dimethylphthalate	ND		0.50	ug/L		11/27/22 10:25	11/29/22 14:19	1
Di-n-butyl phthalate	ND		1.0	ug/L		11/27/22 10:25	11/29/22 14:19	1
Di-n-octyl phthalate	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Endosulfan I (Alpha)	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Endosulfan II (Beta)	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Endosulfan sulfate	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Endrin	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Endrin aldehyde	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
EPTC	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Fluoranthene	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1

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Client Sample Results

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-1

Date Collected: 11/15/22 10:31

Matrix: Drinking Water

Date Received: 11/17/22 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
gamma-Chlordane	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Heptachlor	ND		0.040	ug/L		11/27/22 10:25	11/29/22 14:19	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Hexachlorobenzene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Isophorone	ND		0.50	ug/L		11/27/22 10:25	11/29/22 14:19	1
Lindane	ND		0.040	ug/L		11/27/22 10:25	11/29/22 14:19	1
Malathion	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Methoxychlor	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Metolachlor	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Metribuzin	ND	^3+	0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Molinate	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Naphthalene	ND		0.30	ug/L		11/27/22 10:25	11/29/22 14:19	1
Parathion	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Phenanthrene	ND		0.040	ug/L		11/27/22 10:25	11/29/22 14:19	1
Propachlor	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Pyrene	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Simazine	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Terbacil	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Terbuthylazine	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1
Thiobencarb	ND		0.20	ug/L		11/27/22 10:25	11/29/22 14:19	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		11/27/22 10:25	11/29/22 14:19	1
trans-Nonachlor	ND		0.050	ug/L		11/27/22 10:25	11/29/22 14:19	1
Trifluralin	ND		0.10	ug/L		11/27/22 10:25	11/29/22 14:19	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				11/27/22 10:25	11/29/22 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	11/27/22 10:25	11/29/22 14:19	1
Perylene-d12	96		70 - 130	11/27/22 10:25	11/29/22 14:19	1
Triphenylphosphate	110		70 - 130	11/27/22 10:25	11/29/22 14:19	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		11/22/22 00:00	12/03/22 11:32	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Acenaphthene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Acenaphthylene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Anthracene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-1

Date Collected: 11/15/22 10:31

Matrix: Drinking Water

Date Received: 11/17/22 10:00

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[g,h,i]perylene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Biphenyl	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Chrysene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Dibenzothiophene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		11/22/22 00:00	12/03/22 11:32	1
Fluoranthene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Fluorene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Naphthalene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Perylene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Phenanthrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1
Pyrene	ND		0.005	0.001	µg/L		11/22/22 00:00	12/03/22 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	99		45 - 118	11/22/22 00:00	12/03/22 11:32	1
(d10-Phenanthrene)	101		56 - 123	11/22/22 00:00	12/03/22 11:32	1
(d12-Chrysene)	103		36 - 142	11/22/22 00:00	12/03/22 11:32	1
(d12-Perylene)	100		36 - 161	11/22/22 00:00	12/03/22 11:32	1
(d8-Naphthalene)	88		20 - 112	11/22/22 00:00	12/03/22 11:32	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			11/18/22 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	94		60 - 140		11/18/22 19:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			11/22/22 19:05	1
MOTOR OIL	ND	U	0.050		mg/L			11/22/22 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	92		60 - 130		11/22/22 19:05	1
HEXACOSANE	107		60 - 130		11/22/22 19:05	1

Client Sample ID: TB:MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-2

Date Collected: 11/15/22 10:31

Matrix: Water

Date Received: 11/17/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.020		mg/L			11/18/22 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	91		60 - 140		11/18/22 21:40	1

Action Limit Summary

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-28636-1

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-28636-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-28636-1	MOANALUA WELLS (331-223-T	101	96	110

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-28618-V-1-A DU	Duplicate	105	91	110
380-28597-BE-1-A MS	Matrix Spike	102	92	112
LCS 380-25142/3-A	Lab Control Sample	101	87	109
LCS 380-25142/4-A	Lab Control Sample Dup	103	94	110
MB 380-25142/1-A	Method Blank	103	93	107
MRL 380-25142/2-A	Lab Control Sample	105	88	106

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

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

Matrix: BlankMatrix

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		Acenaphtl (27-133)	Phenanth (43-129)	CRY (52-144)	NPT (25-125)	PRY (36-161)
101916-B1	Method Blank	71	92	92	81	82
101916-BS1	Lab Control Sample	76	83	74	78	81
101916-BS2	Lab Control Sample Dup	78	96	87	74	97

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

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		Acenaphtl (45-118)	Phenanth (56-123)	CRY (36-142)	NPT (20-112)	PRY (36-161)
380-28636-1	MOANALUA WELLS (331-223-T	99	101	103	88	100

Surrogate Legend
 (d10-Acenaphthene) = (d10-Acenaphthene)
 (d10-Phenanthrene) = (d10-Phenanthrene)

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Surrogate Summary

Client: City & County of Honolulu
Project/Site: Rush Weekly RED-HILL
CRY = (d12-Chrysene)
NPT = (d8-Naphthalene)
PRY = (d12-Perylene)

Job ID: 380-28636-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-28636-1	MOANALUA WELLS (331-223-T	94

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
22K219-01M	Matrix Spike	118
22K219-01S	Matrix Spike Duplicate	114

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
22VGH7K11B	Method Blank	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
22VGH7K11C	LCD	117
22VGH7K11L	Lab Control Sample	117

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-28636-2	TB:MOANALUA WELLS (331-22	91

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

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

Job ID: 380-28636-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
380-28636-1	MOANALUA WELLS (331-223-T	92	107

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
22DSK033WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
22DSK033WC	LCD	99	106
22DSK033WL	Lab Control Sample	104	118

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: MB 380-25142/1-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25142

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2,4'-DDD	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2,4'-DDE	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2,4'-DDT	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2,4-Dinitrotoluene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2,6-Dinitrotoluene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
2-Methylnaphthalene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
4,4'-DDD	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
4,4'-DDE	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
4,4'-DDT	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Acenaphthene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Acenaphthylene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Acetochlor	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Alachlor	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
alpha-BHC	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
alpha-Chlordane	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Anthracene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 08:20	1
Atrazine	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Benz(a)anthracene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Benzo[a]pyrene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 08:20	1
Benzo[b]fluoranthene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 08:20	1
Benzo[g,h,i]perylene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Benzo[k]fluoranthene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 08:20	1
beta-BHC	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		11/27/22 10:25	11/29/22 08:20	1
Bromacil	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Butachlor	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Butylbenzylphthalate	ND		0.49	ug/L		11/27/22 10:25	11/29/22 08:20	1
Chlorobenzilate	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Chloroneb	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Chlorpyrifos	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Chrysene	ND		0.020	ug/L		11/27/22 10:25	11/29/22 08:20	1
delta-BHC	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		11/27/22 10:25	11/29/22 08:20	1
Dibenz(a,h)anthracene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Diclorvos (DDVP)	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Dieldrin	ND		0.20	ug/L		11/27/22 10:25	11/29/22 08:20	1
Diethylphthalate	ND		0.49	ug/L		11/27/22 10:25	11/29/22 08:20	1
Dimethylphthalate	ND		0.49	ug/L		11/27/22 10:25	11/29/22 08:20	1
Di-n-butyl phthalate	ND		0.99	ug/L		11/27/22 10:25	11/29/22 08:20	1
Di-n-octyl phthalate	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Endosulfan I (Alpha)	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Endosulfan II (Beta)	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Endosulfan sulfate	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Endrin	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Endrin aldehyde	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
EPTC	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: MB 380-25142/1-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25142

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Fluorene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
gamma-Chlordane	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Heptachlor	ND		0.040	ug/L		11/27/22 10:25	11/29/22 08:20	1
Heptachlor epoxide (isomer B)	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Hexachlorobenzene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Hexachlorocyclopentadiene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Indeno[1,2,3-cd]pyrene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Isophorone	ND		0.49	ug/L		11/27/22 10:25	11/29/22 08:20	1
Lindane	ND		0.040	ug/L		11/27/22 10:25	11/29/22 08:20	1
Malathion	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Methoxychlor	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Metolachlor	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Metribuzin	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Molinate	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Naphthalene	ND		0.30	ug/L		11/27/22 10:25	11/29/22 08:20	1
Parathion	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Phenanthrene	ND		0.040	ug/L		11/27/22 10:25	11/29/22 08:20	1
Propachlor	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Pyrene	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Simazine	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Terbacil	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Terbutylazine	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1
Thiobencarb	ND		0.20	ug/L		11/27/22 10:25	11/29/22 08:20	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		11/27/22 10:25	11/29/22 08:20	1
trans-Nonachlor	ND		0.049	ug/L		11/27/22 10:25	11/29/22 08:20	1
Trifluralin	ND		0.099	ug/L		11/27/22 10:25	11/29/22 08:20	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.32	T J	ug/L		2.39		11/27/22 10:25	11/29/22 08:20	1
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	0.547	T J N	ug/L		9.92	6422-86-2	11/27/22 10:25	11/29/22 08:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	103		70 - 130	11/27/22 10:25	11/29/22 08:20	1
Perylene-d12	93		70 - 130	11/27/22 10:25	11/29/22 08:20	1
Triphenylphosphate	107		70 - 130	11/27/22 10:25	11/29/22 08:20	1

Lab Sample ID: LCS 380-25142/3-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	1.79		ug/L		91	70 - 130
2,4'-DDD	1.97	2.01		ug/L		102	70 - 130
2,4'-DDE	1.97	1.88		ug/L		95	70 - 130
2,4'-DDT	1.97	1.75		ug/L		89	70 - 130

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: LCS 380-25142/3-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.97	2.03		ug/L		103	70 - 130
2,6-Dinitrotoluene	1.97	1.96		ug/L		99	70 - 130
2-Methylnaphthalene	1.97	1.84		ug/L		93	70 - 130
4,4'-DDD	1.97	1.77		ug/L		90	70 - 130
4,4'-DDE	1.97	1.93		ug/L		98	70 - 130
4,4'-DDT	1.97	1.59		ug/L		80	70 - 130
Acenaphthene	1.97	1.91		ug/L		97	70 - 130
Acenaphthylene	1.97	1.82		ug/L		92	70 - 130
Acetochlor	1.97	2.25		ug/L		114	70 - 130
Alachlor	1.97	2.20		ug/L		112	70 - 130
alpha-BHC	1.97	2.21		ug/L		112	70 - 130
alpha-Chlordane	1.97	2.15		ug/L		109	70 - 130
Anthracene	1.97	2.19		ug/L		111	70 - 130
Atrazine	1.97	2.02		ug/L		102	70 - 130
Benz(a)anthracene	1.97	1.79		ug/L		91	70 - 130
Benzo[a]pyrene	1.97	1.62		ug/L		82	70 - 130
Benzo[b]fluoranthene	1.97	1.70		ug/L		86	70 - 130
Benzo[g,h,i]perylene	1.97	2.23		ug/L		113	70 - 130
Benzo[k]fluoranthene	1.97	1.84		ug/L		93	70 - 130
beta-BHC	1.97	2.41		ug/L		122	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	2.32		ug/L		118	70 - 130
Bromacil	1.97	2.10		ug/L		107	70 - 130
Butachlor	1.97	2.53		ug/L		128	70 - 130
Butylbenzylphthalate	1.97	2.40		ug/L		121	70 - 130
Chlorobenzilate	1.97	2.24		ug/L		114	70 - 130
Chloroneb	1.97	1.93		ug/L		98	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	1.93		ug/L		98	70 - 130
Chlorpyrifos	1.97	2.16		ug/L		110	70 - 130
Chrysene	1.97	1.98		ug/L		100	70 - 130
delta-BHC	1.97	2.13		ug/L		108	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.19		ug/L		111	70 - 130
Dibenz(a,h)anthracene	1.97	2.14		ug/L		108	70 - 130
Diclorvos (DDVP)	1.97	2.18		ug/L		111	70 - 130
Dieldrin	1.97	1.94		ug/L		98	70 - 130
Diethylphthalate	1.97	2.03		ug/L		103	70 - 130
Dimethylphthalate	1.97	2.18		ug/L		111	70 - 130
Di-n-butyl phthalate	3.94	4.33		ug/L		110	70 - 130
Di-n-octyl phthalate	1.97	1.84		ug/L		93	70 - 130
Endosulfan I (Alpha)	1.97	2.03		ug/L		103	70 - 130
Endosulfan II (Beta)	1.97	2.05		ug/L		104	70 - 130
Endosulfan sulfate	1.97	1.85		ug/L		94	70 - 130
Endrin	1.97	2.46		ug/L		125	70 - 130
Endrin aldehyde	1.97	1.95		ug/L		99	70 - 130
EPTC	1.97	1.87		ug/L		95	70 - 130
Fluoranthene	1.97	2.18		ug/L		111	70 - 130
Fluorene	1.97	2.08		ug/L		106	70 - 130
gamma-Chlordane	1.97	2.18		ug/L		111	70 - 130
Heptachlor	1.97	2.09		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.23		ug/L		113	70 - 130

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: LCS 380-25142/3-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.97	1.94		ug/L		99	70 - 130
Hexachlorocyclopentadiene	1.97	1.50		ug/L		76	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	2.24		ug/L		113	70 - 130
Isophorone	1.97	1.87		ug/L		95	70 - 130
Lindane	1.97	2.27		ug/L		115	70 - 130
Malathion	1.97	2.30		ug/L		117	70 - 130
Methoxychlor	1.97	1.91		ug/L		97	70 - 130
Metolachlor	1.97	2.19		ug/L		111	70 - 130
Metribuzin	1.97	1.86		ug/L		94	70 - 130
Molinate	1.97	1.90		ug/L		96	70 - 130
Naphthalene	1.97	1.76		ug/L		89	70 - 130
Parathion	1.97	2.16		ug/L		110	70 - 130
Pendimethalin (Penoxaline)	1.97	1.75		ug/L		89	70 - 130
Phenanthrene	1.97	2.19		ug/L		111	70 - 130
Propachlor	1.97	2.07		ug/L		105	70 - 130
Pyrene	1.97	2.22		ug/L		112	70 - 130
Simazine	1.97	2.15		ug/L		109	70 - 130
Terbacil	1.97	2.24		ug/L		114	70 - 130
Terbutylazine	1.97	1.87		ug/L		95	70 - 130
Thiobencarb	1.97	2.30		ug/L		117	70 - 130
trans-Nonachlor	1.97	2.09		ug/L		106	70 - 130
Trifluralin	1.97	1.70		ug/L		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: LCSD 380-25142/4-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1-Methylnaphthalene	1.99	1.91		ug/L		96	70 - 130	6	20
2,4'-DDD	1.99	1.98		ug/L		100	70 - 130	1	20
2,4'-DDE	1.99	1.87		ug/L		94	70 - 130	1	20
2,4'-DDT	1.99	1.80		ug/L		91	70 - 130	3	20
2,4-Dinitrotoluene	1.99	1.99		ug/L		100	70 - 130	2	20
2,6-Dinitrotoluene	1.99	1.92		ug/L		97	70 - 130	2	20
2-Methylnaphthalene	1.99	1.93		ug/L		97	70 - 130	5	20
4,4'-DDD	1.99	1.80		ug/L		91	70 - 130	2	20
4,4'-DDE	1.99	1.97		ug/L		99	70 - 130	2	20
4,4'-DDT	1.99	1.64		ug/L		83	70 - 130	3	20
Acenaphthene	1.99	1.95		ug/L		98	70 - 130	2	20
Acenaphthylene	1.99	1.91		ug/L		96	70 - 130	5	20
Acetochlor	1.99	2.21		ug/L		111	70 - 130	2	20
Alachlor	1.99	2.15		ug/L		108	70 - 130	2	20
alpha-BHC	1.99	2.15		ug/L		109	70 - 130	3	20

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: LCSD 380-25142/4-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
alpha-Chlordane	1.99	2.16		ug/L		109	70 - 130	0	20	
Anthracene	1.99	2.22		ug/L		112	70 - 130	1	20	
Atrazine	1.99	1.93		ug/L		97	70 - 130	4	20	
Benz(a)anthracene	1.99	1.78		ug/L		90	70 - 130	0	20	
Benzo[a]pyrene	1.99	1.77		ug/L		89	70 - 130	9	20	
Benzo[b]fluoranthene	1.99	1.78		ug/L		90	70 - 130	4	20	
Benzo[g,h,i]perylene	1.99	2.64	*+	ug/L		133	70 - 130	17	20	
Benzo[k]fluoranthene	1.99	1.98		ug/L		100	70 - 130	7	20	
beta-BHC	1.99	2.22		ug/L		112	70 - 130	8	20	
Bis(2-ethylhexyl) phthalate	1.99	2.34		ug/L		118	70 - 130	1	20	
Bromacil	1.99	2.00		ug/L		101	70 - 130	5	20	
Butachlor	1.99	2.49		ug/L		125	70 - 130	2	20	
Butylbenzylphthalate	1.99	2.37		ug/L		120	70 - 130	1	20	
Chlorobenzilate	1.99	2.25		ug/L		113	70 - 130	0	20	
Chloroneb	1.99	1.92		ug/L		97	70 - 130	1	20	
Chlorothalonil (Draconil, Bravo)	1.99	1.92		ug/L		97	70 - 130	0	20	
Chlorpyrifos	1.99	2.13		ug/L		107	70 - 130	1	20	
Chrysene	1.99	1.88		ug/L		95	70 - 130	5	20	
delta-BHC	1.99	2.18		ug/L		110	70 - 130	2	20	
Di(2-ethylhexyl)adipate	1.99	2.18		ug/L		110	70 - 130	1	20	
Dibenz(a,h)anthracene	1.99	2.57		ug/L		129	70 - 130	18	20	
Diclorvos (DDVP)	1.99	2.22		ug/L		112	70 - 130	2	20	
Dieldrin	1.99	1.90		ug/L		96	70 - 130	2	20	
Diethylphthalate	1.99	2.05		ug/L		103	70 - 130	1	20	
Dimethylphthalate	1.99	2.20		ug/L		111	70 - 130	1	20	
Di-n-butyl phthalate	3.97	4.30		ug/L		108	70 - 130	1	20	
Di-n-octyl phthalate	1.99	1.87		ug/L		94	70 - 130	1	20	
Endosulfan I (Alpha)	1.99	1.99		ug/L		100	70 - 130	2	20	
Endosulfan II (Beta)	1.99	2.07		ug/L		105	70 - 130	1	20	
Endosulfan sulfate	1.99	1.91		ug/L		96	70 - 130	3	20	
Endrin	1.99	2.41		ug/L		121	70 - 130	2	20	
Endrin aldehyde	1.99	2.08		ug/L		105	70 - 130	6	20	
EPTC	1.99	1.98		ug/L		100	70 - 130	6	20	
Fluoranthene	1.99	2.12		ug/L		107	70 - 130	3	20	
Fluorene	1.99	2.11		ug/L		106	70 - 130	1	20	
gamma-Chlordane	1.99	2.21		ug/L		111	70 - 130	1	20	
Heptachlor	1.99	2.15		ug/L		108	70 - 130	3	20	
Heptachlor epoxide (isomer B)	1.99	2.17		ug/L		109	70 - 130	3	20	
Hexachlorobenzene	1.99	1.95		ug/L		98	70 - 130	0	20	
Hexachlorocyclopentadiene	1.99	1.56		ug/L		79	70 - 130	5	20	
Indeno[1,2,3-cd]pyrene	1.99	2.49		ug/L		126	70 - 130	11	20	
Isophorone	1.99	2.00		ug/L		101	70 - 130	7	20	
Lindane	1.99	2.14		ug/L		108	70 - 130	6	20	
Malathion	1.99	2.26		ug/L		114	70 - 130	2	20	
Methoxychlor	1.99	1.85		ug/L		93	70 - 130	3	20	
Metolachlor	1.99	2.18		ug/L		110	70 - 130	1	20	
Metribuzin	1.99	1.80		ug/L		91	70 - 130	3	20	
Molinate	1.99	1.96		ug/L		99	70 - 130	3	20	
Naphthalene	1.99	1.84		ug/L		93	70 - 130	5	20	

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: LCSD 380-25142/4-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Parathion	1.99	2.06		ug/L		104	70 - 130	5	20
Pendimethalin (Penoxaline)	1.99	1.76		ug/L		89	70 - 130	0	20
Phenanthrene	1.99	2.16		ug/L		109	70 - 130	1	20
Propachlor	1.99	2.00		ug/L		101	70 - 130	4	20
Pyrene	1.99	2.13		ug/L		107	70 - 130	4	20
Simazine	1.99	2.00		ug/L		101	70 - 130	7	20
Terbacil	1.99	2.15		ug/L		108	70 - 130	4	20
Terbutylazine	1.99	1.82		ug/L		92	70 - 130	2	20
Thiobencarb	1.99	2.25		ug/L		113	70 - 130	2	20
trans-Nonachlor	1.99	2.11		ug/L		106	70 - 130	1	20
Trifluralin	1.99	1.65		ug/L		83	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	103		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: MRL 380-25142/2-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0983	0.104		ug/L		105	50 - 150
2,4'-DDD	0.0983	0.126		ug/L		128	50 - 150
2,4'-DDE	0.0983	0.0799	J	ug/L		81	50 - 150
2,4'-DDT	0.0983	0.0939	J	ug/L		96	50 - 150
2,4-Dinitrotoluene	0.0983	0.0636	J	ug/L		65	50 - 150
2,6-Dinitrotoluene	0.0983	0.0735	J	ug/L		75	50 - 150
2-Methylnaphthalene	0.0983	0.105		ug/L		106	50 - 150
4,4'-DDD	0.0983	0.101		ug/L		102	50 - 150
4,4'-DDE	0.0983	0.0807	J	ug/L		82	50 - 150
4,4'-DDT	0.0983	0.128		ug/L		130	50 - 150
Acenaphthene	0.0983	0.0893	J	ug/L		91	50 - 150
Acenaphthylene	0.0983	0.0762	J	ug/L		78	50 - 150
Acetochlor	0.0491	0.0408	J	ug/L		83	50 - 150
Alachlor	0.0491	0.0491		ug/L		100	50 - 150
alpha-BHC	0.0983	0.109		ug/L		111	50 - 150
alpha-Chlordane	0.0246	ND		ug/L		101	50 - 150
Anthracene	0.0197	0.0207		ug/L		105	50 - 150
Atrazine	0.0491	0.0613		ug/L		125	50 - 150
Benz(a)anthracene	0.0491	0.0491		ug/L		100	50 - 150
Benzo[a]pyrene	0.0197	0.0169	J	ug/L		86	50 - 150
Benzo[b]fluoranthene	0.0197	0.0187	J	ug/L		95	50 - 150
Benzo[g,h,i]perylene	0.0491	0.0617		ug/L		125	50 - 150
Benzo[k]fluoranthene	0.0197	0.0192	J	ug/L		98	50 - 150
beta-BHC	0.0983	0.104		ug/L		106	50 - 150
Bis(2-ethylhexyl) phthalate	0.590	0.680		ug/L		115	50 - 150
Bromacil	0.0983	0.145		ug/L		148	50 - 150

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: MRL 380-25142/2-A
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Butachlor	0.0491	0.0634		ug/L		129	50 - 150
Butylbenzylphthalate	0.147	0.173	J	ug/L		117	50 - 150
Chlorobenzilate	0.0983	0.117		ug/L		119	50 - 150
Chloroneb	0.0983	0.109		ug/L		111	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0983	0.119		ug/L		121	50 - 150
Chlorpyrifos	0.0491	0.0586		ug/L		119	50 - 150
Chrysene	0.0197	0.0210		ug/L		107	50 - 150
delta-BHC	0.0983	0.134		ug/L		136	50 - 150
Di(2-ethylhexyl)adipate	0.295	0.368	J	ug/L		125	50 - 150
Dibenz(a,h)anthracene	0.0491	0.0586		ug/L		119	50 - 150
Diclorvos (DDVP)	0.0491	0.0597		ug/L		121	50 - 150
Dieldrin	0.0983	0.0808	J	ug/L		82	50 - 150
Diethylphthalate	0.147	0.158	J	ug/L		107	50 - 150
Dimethylphthalate	0.295	0.267	J	ug/L		90	50 - 150
Di-n-butyl phthalate	0.295	0.358	J	ug/L		121	49 - 243
Di-n-octyl phthalate	0.0983	0.113		ug/L		115	50 - 150
Endosulfan I (Alpha)	0.0983	0.107		ug/L		109	50 - 150
Endosulfan II (Beta)	0.0983	0.132		ug/L		134	50 - 150
Endosulfan sulfate	0.0983	0.0692	J	ug/L		70	50 - 150
Endrin	0.0983	0.131		ug/L		133	50 - 150
Endrin aldehyde	0.0983	ND		ug/L		79	50 - 150
EPTC	0.0983	0.102		ug/L		104	50 - 150
Fluoranthene	0.0491	0.0545	J	ug/L		111	50 - 150
Fluorene	0.0491	ND		ug/L		92	50 - 150
gamma-Chlordane	0.0246	0.0233	J	ug/L		95	50 - 150
Heptachlor	0.0393	0.0355	J	ug/L		90	50 - 150
Heptachlor epoxide (isomer B)	0.0491	0.0523		ug/L		106	50 - 150
Hexachlorobenzene	0.0491	ND		ug/L		76	50 - 150
Hexachlorocyclopentadiene	0.0491	ND		ug/L		74	50 - 150
Indeno[1,2,3-cd]pyrene	0.0491	0.0575		ug/L		117	50 - 150
Isophorone	0.0983	0.0995	J	ug/L		101	50 - 150
Lindane	0.0393	0.0438		ug/L		111	50 - 150
Malathion	0.0983	0.0954	J	ug/L		97	50 - 150
Methoxychlor	0.0983	0.133		ug/L		136	50 - 150
Metolachlor	0.0491	0.0552		ug/L		112	50 - 150
Metribuzin	0.0491	0.0979	^3+	ug/L		199	50 - 150
Molinate	0.0983	0.111		ug/L		113	50 - 150
Naphthalene	0.0983	0.117	J	ug/L		119	50 - 150
Parathion	0.0983	0.125		ug/L		127	50 - 150
Pendimethalin (Penoxaline)	0.0983	0.102		ug/L		104	50 - 150
Phenanthrene	0.0197	0.0255	J	ug/L		130	50 - 150
Propachlor	0.0491	0.0539		ug/L		110	50 - 150
Pyrene	0.0491	0.0594		ug/L		121	50 - 150
Simazine	0.0491	0.0642		ug/L		131	50 - 150
Terbacil	0.0983	0.120		ug/L		122	50 - 150
Terbutylazine	0.0983	0.122		ug/L		124	50 - 150
Thiobencarb	0.0983	0.125	J	ug/L		127	50 - 150
trans-Nonachlor	0.0246	ND		ug/L		103	50 - 150
Trifluralin	0.0983	0.0924	J	ug/L		94	50 - 150

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QC Sample Results

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

Job ID: 380-28636-1

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

<i>Surrogate</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	105		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: 380-28597-BE-1-A MS
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		1.95	1.86		ug/L		96	70 - 130
2,4'-DDD	ND		1.95	2.13		ug/L		109	70 - 130
2,4'-DDE	ND		1.95	2.09		ug/L		107	70 - 130
2,4'-DDT	ND		1.95	2.15		ug/L		111	70 - 130
2,4-Dinitrotoluene	ND		1.95	2.04		ug/L		105	70 - 130
2,6-Dinitrotoluene	ND		1.95	2.01		ug/L		103	70 - 130
2-Methylnaphthalene	ND		1.95	1.90		ug/L		98	70 - 130
4,4'-DDD	ND		1.95	2.19		ug/L		112	70 - 130
4,4'-DDE	ND		1.95	1.98		ug/L		102	70 - 130
4,4'-DDT	ND		1.95	1.95		ug/L		100	70 - 130
Acenaphthene	ND		1.95	1.91		ug/L		98	70 - 130
Acenaphthylene	ND		1.95	1.88		ug/L		96	70 - 130
Acetochlor	ND		1.95	2.23		ug/L		114	70 - 130
Alachlor	ND		1.95	2.06		ug/L		106	70 - 130
alpha-BHC	ND		1.95	2.03		ug/L		104	70 - 130
alpha-Chlordane	ND		1.95	1.75		ug/L		90	70 - 130
Anthracene	ND	F1	1.95	0.797	F1	ug/L		41	70 - 130
Atrazine	ND		1.95	1.97		ug/L		101	70 - 130
Benz(a)anthracene	ND		1.95	1.72		ug/L		88	70 - 130
Benzo[a]pyrene	ND	F1	1.95	1.07	F1	ug/L		55	70 - 130
Benzo[b]fluoranthene	ND		1.95	1.85		ug/L		95	70 - 130
Benzo[g,h,i]perylene	ND	+	1.95	2.23		ug/L		114	70 - 130
Benzo[k]fluoranthene	ND		1.95	2.03		ug/L		104	70 - 130
beta-BHC	ND		1.95	2.07		ug/L		107	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.95	2.22		ug/L		114	70 - 130
Bromacil	ND		1.95	1.86		ug/L		95	70 - 130
Butachlor	ND		1.95	2.26		ug/L		116	70 - 130
Butylbenzylphthalate	ND		1.95	2.31		ug/L		119	70 - 130
Chlorobenzilate	ND	F1	1.95	2.60	F1	ug/L		134	70 - 130
Chloroneb	ND		1.95	1.89		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.95	1.94		ug/L		100	70 - 130
Chlorpyrifos	ND		1.95	2.17		ug/L		112	70 - 130
Chrysene	ND		1.95	1.89		ug/L		97	70 - 130
delta-BHC	ND		1.95	1.94		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	ND		1.95	2.26		ug/L		116	70 - 130
Dibenz(a,h)anthracene	ND		1.95	2.32		ug/L		119	70 - 130
Diclorvos (DDVP)	ND		1.95	2.15		ug/L		110	70 - 130
Dieldrin	ND		1.95	2.00		ug/L		103	70 - 130
Diethylphthalate	ND		1.95	2.05		ug/L		106	70 - 130
Dimethylphthalate	ND		1.95	2.17		ug/L		112	70 - 130
Di-n-butyl phthalate	ND		3.89	4.39		ug/L		111	70 - 130
Di-n-octyl phthalate	ND		1.95	1.83		ug/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 380-28597-BE-1-A MS
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Endosulfan I (Alpha)	ND		1.95	2.21		ug/L		114	70 - 130
Endosulfan II (Beta)	ND		1.95	2.26		ug/L		116	70 - 130
Endosulfan sulfate	ND		1.95	2.25		ug/L		116	70 - 130
Endrin	ND		1.95	2.14		ug/L		110	70 - 130
Endrin aldehyde	ND		1.95	1.94		ug/L		100	70 - 130
EPTC	ND		1.95	2.00		ug/L		103	70 - 130
Fluoranthene	ND		1.95	2.11		ug/L		108	70 - 130
Fluorene	ND		1.95	2.09		ug/L		107	70 - 130
gamma-Chlordane	ND		1.95	1.80		ug/L		92	70 - 130
Heptachlor	ND		1.95	1.98		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	ND		1.95	1.87		ug/L		96	70 - 130
Hexachlorobenzene	ND		1.95	1.93		ug/L		99	70 - 130
Hexachlorocyclopentadiene	ND		1.95	1.57		ug/L		81	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.95	2.29		ug/L		118	70 - 130
Isophorone	ND		1.95	1.95		ug/L		100	70 - 130
Lindane	ND		1.95	1.95		ug/L		100	70 - 130
Malathion	ND		1.95	2.20		ug/L		113	70 - 130
Methoxychlor	ND		1.95	2.01		ug/L		103	70 - 130
Metolachlor	ND		1.95	2.12		ug/L		109	70 - 130
Metribuzin	ND	^3+	1.95	1.84		ug/L		95	70 - 130
Molinate	ND		1.95	2.07		ug/L		106	70 - 130
Naphthalene	ND		1.95	1.80		ug/L		92	70 - 130
Parathion	ND		1.95	2.01		ug/L		103	70 - 130
Pendimethalin (Penoxaline)	ND		1.95	1.93		ug/L		99	70 - 130
Phenanthrene	ND		1.95	2.08		ug/L		107	70 - 130
Propachlor	ND		1.95	1.99		ug/L		102	70 - 130
Pyrene	ND		1.95	2.23		ug/L		114	70 - 130
Simazine	ND		1.95	2.03		ug/L		104	70 - 130
Terbacil	ND		1.95	2.16		ug/L		111	70 - 130
Terbutylazine	ND		1.95	1.82		ug/L		94	70 - 130
Thiobencarb	ND		1.95	2.24		ug/L		115	70 - 130
trans-Nonachlor	ND		1.95	2.13		ug/L		109	70 - 130
Trifluralin	ND		1.95	1.73		ug/L		89	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	102		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: 380-28618-V-1-A DU
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 25142

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

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 380-28618-V-1-A DU
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 25142

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

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 380-28618-V-1-A DU
Matrix: Water
Analysis Batch: 25254

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 25142

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Hexachlorobenzene	ND		ND		ug/L		NC	20
Hexachlorocyclopentadiene	ND		ND		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	ND		ND		ug/L		NC	20
Isophorone	ND		ND		ug/L		NC	20
Lindane	ND		ND		ug/L		NC	20
Malathion	ND		ND		ug/L		NC	20
Methoxychlor	ND		ND		ug/L		NC	20
Metolachlor	ND		ND		ug/L		NC	20
Metribuzin	ND	^3+	ND		ug/L		NC	20
Molinate	ND		ND		ug/L		NC	20
Naphthalene	ND		ND		ug/L		NC	20
Parathion	ND		ND		ug/L		NC	20
Pendimethalin (Penoxaline)	ND		ND		ug/L		NC	20
Phenanthrene	ND		ND		ug/L		NC	20
Propachlor	ND		ND		ug/L		NC	20
Pyrene	ND		ND		ug/L		NC	20
Simazine	ND		ND		ug/L		NC	20
Terbacil	ND		ND		ug/L		NC	20
Terbutylazine	ND		ND		ug/L		NC	20
Thiobencarb	ND		ND		ug/L		NC	20
Total Permethrin (mixed isomers)	ND		ND		ug/L		NC	20
trans-Nonachlor	ND		ND		ug/L		NC	20
Trifluralin	ND		ND		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	105		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	110		70 - 130

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

Lab Sample ID: 101916-B1
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-40028_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1-Methylnaphthalene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Acenaphthene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Acenaphthylene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Anthracene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 101916-B1
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-40028_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Biphenyl	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Chrysene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Dibenzothiophene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		11/21/22 00:00	12/03/22 04:24	1
Fluoranthene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Fluorene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Naphthalene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Perylene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Phenanthrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1
Pyrene	ND		0.005	0.001	µg/L		11/21/22 00:00	12/03/22 04:24	1

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	71		27 - 133	11/21/22 00:00	12/03/22 04:24	1
(d10-Phenanthrene)	92		43 - 129	11/21/22 00:00	12/03/22 04:24	1
(d12-Chrysene)	92		52 - 144	11/21/22 00:00	12/03/22 04:24	1
(d12-Perylene)	82		36 - 161	11/21/22 00:00	12/03/22 04:24	1
(d8-Naphthalene)	81		25 - 125	11/21/22 00:00	12/03/22 04:24	1

Lab Sample ID: 101916-BS1
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40028_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.382		µg/L		76	31 - 128
1-Methylphenanthrene	0.5	0.368		µg/L		74	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.397		µg/L		79	55 - 122
2,6-Dimethylnaphthalene	0.5	0.404		µg/L		81	48 - 120
2-Methylnaphthalene	0.5	0.385		µg/L		77	47 - 130
Acenaphthene	0.5	0.335		µg/L		67	53 - 131
Acenaphthylene	0.5	0.386		µg/L		77	43 - 140
Anthracene	0.5	0.4		µg/L		80	58 - 135
Benz[a]anthracene	0.5	0.389		µg/L		78	55 - 145
Benzo[a]pyrene	0.5	0.386		µg/L		77	51 - 143
Benzo[b]fluoranthene	0.5	0.542		µg/L		108	46 - 165
Benzo[e]pyrene	0.5	0.485		µg/L		97	42 - 152
Benzo[g,h,i]perylene	0.5	0.389		µg/L		78	63 - 133
Benzo[k]fluoranthene	0.5	0.481		µg/L		96	56 - 145
Biphenyl	0.5	0.401		µg/L		80	56 - 119
Chrysene	0.5	0.339		µg/L		68	56 - 141
Dibenz[a,h]anthracene	0.5	0.508		µg/L		102	55 - 150
Dibenzo[a,l]pyrene	0.5	0.344		µg/L		69	50 - 150
Dibenzothiophene	0.5	0.419		µg/L		84	75 - 113
Disalicylidenepropanediamine	50	28.3		µg/L		57	50 - 150
Fluoranthene	0.5	0.428		µg/L		86	60 - 146

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 101916-BS1
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40028_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	0.5	0.4		µg/L		80	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.525		µg/L		105	50 - 151
Naphthalene	0.5	0.373		µg/L		75	41 - 126
Perylene	0.5	0.441		µg/L		88	48 - 141
Phenanthrene	0.5	0.416		µg/L		83	67 - 127
Pyrene	0.5	0.426		µg/L		85	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
(d10-Acenaphthene)	76		27 - 133
(d10-Phenanthrene)	83		43 - 129
(d12-Chrysene)	74		52 - 144
(d12-Perylene)	81		36 - 161
(d8-Naphthalene)	78		25 - 125

Lab Sample ID: 101916-BS2
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40028_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.34		µg/L		68	31 - 128	11	30
1-Methylphenanthrene	0.5	0.482		µg/L		96	66 - 127	26	30
2,3,5-Trimethylnaphthalene	0.5	0.44		µg/L		88	55 - 122	11	30
2,6-Dimethylnaphthalene	0.5	0.337		µg/L		67	48 - 120	19	30
2-Methylnaphthalene	0.5	0.351		µg/L		70	47 - 130	10	30
Acenaphthene	0.5	0.382		µg/L		76	53 - 131	13	30
Acenaphthylene	0.5	0.353		µg/L		71	43 - 140	8	30
Anthracene	0.5	0.446		µg/L		89	58 - 135	11	30
Benz[a]anthracene	0.5	0.461		µg/L		92	55 - 145	16	30
Benzo[a]pyrene	0.5	0.438		µg/L		88	51 - 143	13	30
Benzo[b]fluoranthene	0.5	0.602		µg/L		120	46 - 165	11	30
Benzo[e]pyrene	0.5	0.557		µg/L		111	42 - 152	13	30
Benzo[g,h,i]perylene	0.5	0.434		µg/L		87	63 - 133	11	30
Benzo[k]fluoranthene	0.5	0.53		µg/L		106	56 - 145	10	30
Biphenyl	0.5	0.319		µg/L		64	56 - 119	22	30
Chrysene	0.5	0.391		µg/L		78	56 - 141	14	30
Dibenz[a,h]anthracene	0.5	0.572		µg/L		114	55 - 150	11	30
Dibenzo[a,l]pyrene	0.5	0.397		µg/L		79	50 - 150	14	30
Dibenzothiophene	0.5	0.467		µg/L		93	75 - 113	10	30
Disalicylidenepropanediamine	50	34.4		µg/L		69	50 - 150	19	30
Fluoranthene	0.5	0.477		µg/L		95	60 - 146	10	30
Fluorene	0.5	0.443		µg/L		89	58 - 131	11	30
Indeno[1,2,3-cd]pyrene	0.5	0.593		µg/L		119	50 - 151	12	30
Naphthalene	0.5	0.343		µg/L		69	41 - 126	8	30
Perylene	0.5	0.493		µg/L		99	48 - 141	12	30
Phenanthrene	0.5	0.463		µg/L		93	67 - 127	11	30
Pyrene	0.5	0.481		µg/L		96	54 - 156	12	30

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 101916-BS2
Matrix: BlankMatrix
Analysis Batch: O-40028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40028_P

Surrogate	LCS DUP %Recovery	LCS DUP Qualifier	Limits
(d10-Acenaphthene)	78		27 - 133
(d10-Phenanthrene)	96		43 - 129
(d12-Chrysene)	87		52 - 144
(d12-Perylene)	97		36 - 161
(d8-Naphthalene)	74		25 - 125

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

Lab Sample ID: 22VGH7K11B
Matrix: WATER
Analysis Batch: 22VGH7K11

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			11/18/22 18:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE			70 - 130		11/18/22 18:01	1

Lab Sample ID: 22VGH7K11L
Matrix: WATER
Analysis Batch: 22VGH7K11

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	0.486		mg/L		97	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOFLUOROBENZENE	117		70 - 130

Lab Sample ID: 22K219-01M
Matrix: WATER
Analysis Batch: 22VGH7K11

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	0.489		mg/L		98	50 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
BROMOFLUOROBENZENE	118		60 - 140

Lab Sample ID: 22K219-01S
Matrix: WATER
Analysis Batch: 22VGH7K11

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	0.469		mg/L		94	50 - 130	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
BROMOFLUOROBENZENE	114		60 - 140

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-28636-1

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

Lab Sample ID: 22DSK033WB
Matrix: WATER
Analysis Batch: 22DSK033W

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			11/22/22 14:47	1
MOTOR OIL	ND	U	0.050		mg/L			11/22/22 14:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOBENZENE								11/22/22 14:47	1
HEXACOSANE								11/22/22 14:47	1

Lab Sample ID: 22DSK033WL
Matrix: WATER
Analysis Batch: 22DSK033W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DIESEL	2.50	2.84		mg/L		114	50 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
BROMOBENZENE	104		60 - 130				
HEXACOSANE	118		60 - 130				

QC Association Summary

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

Job ID: 380-28636-1

GC/MS Semi VOA

Prep Batch: 25142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	
MB 380-25142/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-25142/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-25142/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-25142/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-28597-BE-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-28618-V-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 25254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	25142
MB 380-25142/1-A	Method Blank	Total/NA	Water	525.2	25142
LCS 380-25142/3-A	Lab Control Sample	Total/NA	Water	525.2	25142
LCSD 380-25142/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	25142
MRL 380-25142/2-A	Lab Control Sample	Total/NA	Water	525.2	25142
380-28597-BE-1-A MS	Matrix Spike	Total/NA	Water	525.2	25142
380-28618-V-1-A DU	Duplicate	Total/NA	Water	525.2	25142

Subcontract

Analysis Batch: O-40028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40028_P
101916-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40028_P
101916-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40028_P
101916-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40028_P

Analysis Batch: 22DSK033W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015 LL DRO/MRO	
22DSK033WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO	
22DSK033WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO	

Analysis Batch: 22VGH7K11

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-28636-2	TB:MOANALUA WELLS (331-223-TP202)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
22VGH7K11B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7K11L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-28636-1

Subcontract (Continued)

Analysis Batch: 22VGH7K11 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
22K219-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22K219-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-40028_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-28636-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	EPA_625	
101916-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
101916-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
101916-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	



Lab Chronicle

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

Job ID: 380-28636-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-1

Date Collected: 11/15/22 10:31

Matrix: Drinking Water

Date Received: 11/17/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			25142	N8NE	EA MON	11/27/22 10:25
Total/NA	Analysis	525.2		1	25254	Q8LA	EA MON	11/29/22 14:19
Total/NA	Prep	EPA_625		1	O-40028_P			11/22/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40028	YC		12/03/22 11:32
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7K11	SCerva		11/18/22 19:50
Total/NA	Analysis	8015 LL DRO/MRO		1	22DSK033W	SDees		11/22/22 19:05

Client Sample ID: TB:MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-28636-2

Date Collected: 11/15/22 10:31

Matrix: Water

Date Received: 11/17/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7K11	SCerva		11/18/22 21:40

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 380-28636-1

Laboratory: Eurofins Eaton Monrovia

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-23

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

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

Accreditation/Certification Summary

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

Job ID: 380-28636-1

Laboratory: Eurofins Eaton Monrovia (Continued)

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

Authority	Program	Identification Number	Expiration Date
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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	Terbutylazine
525.2	525.2	Drinking Water	Thiobencarb
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Drinking Water	Trifluralin

Method Summary

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

Job ID: 380-28636-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

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



Sample Summary

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

Job ID: 380-28636-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-28636-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	11/15/22 10:31	11/17/22 10:00	HI0000331
380-28636-2	TB:MOANALUA WELLS (331-223-TP202)	Water	11/15/22 10:31	11/17/22 10:00	

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December 08, 2022

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

Project Name: RED-HILL Project # 38001111 Job # 380-28636-1
Physis Project ID: 1407003-340

Dear Rosalynn,


Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 11/18/2022. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

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

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: 1407003-340

RED-HILL Project # 38001111 Job # 380-28636-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
101917	MOANALUA WELLS	331-223-TP202 (380-28636-1)	11/15/202	10:31	Samplewater	Not Specified



ABBREVIATIONS and ACRONYMS

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

QUALITY ASSURANCE SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PHYSIS QUALIFIER CODES

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

CASE NARRATIVE

QUALIFIER NOTES

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

ND

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

BIANALYTICALS

REPORT

TERRA AURA
ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

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Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 101917-R1	MOANALUA WELLS	331-223-TP202	Matrix: Samplewater				Sampled:	15-Nov-22 10:31		Received:	18-Nov-22
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40028	22-Nov-22	03-Dec-22



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 101917-R1	MOANALUA WELLS 331-223-TP202	Matrix: Samplewater					Sampled:	15-Nov-22 10:31		Received:	18-Nov-22
(d10-Acenaphthene)	EPA 625.1	% Recovery	99	1			Total		O-40028	22-Nov-22	03-Dec-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	101	1			Total		O-40028	22-Nov-22	03-Dec-22
(d12-Chrysene)	EPA 625.1	% Recovery	103	1			Total		O-40028	22-Nov-22	03-Dec-22
(d12-Perylene)	EPA 625.1	% Recovery	100	1			Total		O-40028	22-Nov-22	03-Dec-22
(d8-Naphthalene)	EPA 625.1	% Recovery	88	1			Total		O-40028	22-Nov-22	03-Dec-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
D benz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
D benzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
D benzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40028	22-Nov-22	03-Dec-22

QUALITY CONTROL REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

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Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 101916-B1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40028			Prepared: 21-Nov-22		Analyzed: 03-Dec-22			
Disalicylideneprapanediamin	Total	ND	1	0.05	0.1	µg/L							
Sample ID: 101916-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40028			Prepared: 21-Nov-22		Analyzed: 03-Dec-22			
Disalicylideneprapanediamin	Total	28.3	1	0.05	0.1	µg/L	50	0	57	50 - 150%	PASS		
Sample ID: 101916-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1			Batch ID: O-40028			Prepared: 21-Nov-22		Analyzed: 03-Dec-22			
Disalicylideneprapanediamin	Total	34.4	1	0.05	0.1	µg/L	50	0	69	50 - 150%	PASS	19	30 PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc
							LEVEL	RESULT	% LIMITS	% LIMITS	
Sample ID: 101916-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
		Method: EPA 625.1			Batch ID: O-40028		Prepared: 21-Nov-22		Analyzed: 03-Dec-22		
(d10-Acenaphthene)	Total	71	1			% Recovery	100	71	27 - 133%	PASS	
(d10-Phenanthrene)	Total	92	1			% Recovery	100	92	43 - 129%	PASS	
(d12-Chrysene)	Total	92	1			% Recovery	100	92	52 - 144%	PASS	
(d12-Perylene)	Total	82	1			% Recovery	100	82	36 - 161%	PASS	
(d8-Naphthalene)	Total	81	1			% Recovery	100	81	25 - 125%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L					
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L					
Anthracene	Total	ND	1	0.001	0.005	µg/L					
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L					
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L					
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Biphenyl	Total	ND	1	0.001	0.005	µg/L					
Chrysene	Total	ND	1	0.001	0.005	µg/L					
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L					
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L					
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L					

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

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



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 101916-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-40028			Prepared: 21-Nov-22		Analyzed: 03-Dec-22					
(d10-Acenaphthene)	Total	76	1			% Recovery	100	0	76	27 - 133%	PASS	
(d10-Phenanthrene)	Total	83	1			% Recovery	100	0	83	43 - 129%	PASS	
(d12-Chrysene)	Total	74	1			% Recovery	100	0	74	52 - 144%	PASS	
(d12-Perylene)	Total	81	1			% Recovery	100	0	81	36 - 161%	PASS	
(d8-Naphthalene)	Total	78	1			% Recovery	100	0	78	25 - 125%	PASS	
1-Methylnaphthalene	Total	0.382	1	0.001	0.005	µg/L	0.5	0	76	31 - 128%	PASS	
1-Methylphenanthrene	Total	0.368	1	0.001	0.005	µg/L	0.5	0	74	66 - 127%	PASS	
2,3,5-Trimethylnaphthalene	Total	0.397	1	0.001	0.005	µg/L	0.5	0	79	55 - 122%	PASS	
2,6-Dimethylnaphthalene	Total	0.404	1	0.001	0.005	µg/L	0.5	0	81	48 - 120%	PASS	
2-Methylnaphthalene	Total	0.385	1	0.001	0.005	µg/L	0.5	0	77	47 - 130%	PASS	
Acenaphthene	Total	0.335	1	0.001	0.005	µg/L	0.5	0	67	53 - 131%	PASS	
Acenaphthylene	Total	0.386	1	0.001	0.005	µg/L	0.5	0	77	43 - 140%	PASS	
Anthracene	Total	0.4	1	0.001	0.005	µg/L	0.5	0	80	58 - 135%	PASS	
Benz[a]anthracene	Total	0.389	1	0.001	0.005	µg/L	0.5	0	78	55 - 145%	PASS	
Benzo[a]pyrene	Total	0.386	1	0.001	0.005	µg/L	0.5	0	77	51 - 143%	PASS	
Benzo[b]fluoranthene	Total	0.542	1	0.001	0.005	µg/L	0.5	0	108	46 - 165%	PASS	
Benzo[e]pyrene	Total	0.485	1	0.001	0.005	µg/L	0.5	0	97	42 - 152%	PASS	
Benzo[g,h,i]perylene	Total	0.389	1	0.001	0.005	µg/L	0.5	0	78	63 - 133%	PASS	
Benzo[k]fluoranthene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	56 - 145%	PASS	
Biphenyl	Total	0.401	1	0.001	0.005	µg/L	0.5	0	80	56 - 119%	PASS	
Chrysene	Total	0.339	1	0.001	0.005	µg/L	0.5	0	68	56 - 141%	PASS	
Dibenz[a,h]anthracene	Total	0.508	1	0.001	0.005	µg/L	0.5	0	102	55 - 150%	PASS	
Dibenzo[a,l]pyrene	Total	0.344	1	0.001	0.005	µg/L	0.5	0	69	50 - 150%	PASS	
Dibenzothiophene	Total	0.419	1	0.001	0.005	µg/L	0.5	0	84	75 - 113%	PASS	

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Fluoranthene	Total	0.428	1	0.001	0.005	µg/L	0.5	0	86	60 - 146%	PASS		
Fluorene	Total	0.4	1	0.001	0.005	µg/L	0.5	0	80	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	0.525	1	0.001	0.005	µg/L	0.5	0	105	50 - 151%	PASS		
Naphthalene	Total	0.373	1	0.001	0.005	µg/L	0.5	0	75	41 - 126%	PASS		
Perylene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	48 - 141%	PASS		
Phenanthrene	Total	0.416	1	0.001	0.005	µg/L	0.5	0	83	67 - 127%	PASS		
Pyrene	Total	0.426	1	0.001	0.005	µg/L	0.5	0	85	54 - 156%	PASS		

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc		
							LEVEL	RESULT	%	LIMITS	%	LIMITS			
Sample ID: 101916-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:				
		Method: EPA 625.1			Batch ID: O-40028			Prepared: 21-Nov-22			Analyzed: 03-Dec-22				
(d10-Acenaphthene)	Total	78	1				% Recovery	100	0	78	27 - 133%	PASS	3	30	PASS
(d10-Phenanthrene)	Total	96	1				% Recovery	100	0	96	43 - 129%	PASS	15	30	PASS
(d12-Chrysene)	Total	87	1				% Recovery	100	0	87	52 - 144%	PASS	16	30	PASS
(d12-Perylene)	Total	97	1				% Recovery	100	0	97	36 - 161%	PASS	18	30	PASS
(d8-Naphthalene)	Total	74	1				% Recovery	100	0	74	25 - 125%	PASS	5	30	PASS
1-Methylnaphthalene	Total	0.34	1	0.001	0.005	µg/L		0.5	0	68	31 - 128%	PASS	11	30	PASS
1-Methylphenanthrene	Total	0.482	1	0.001	0.005	µg/L		0.5	0	96	66 - 127%	PASS	26	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.44	1	0.001	0.005	µg/L		0.5	0	88	55 - 122%	PASS	11	30	PASS
2,6-Dimethylnaphthalene	Total	0.337	1	0.001	0.005	µg/L		0.5	0	67	48 - 120%	PASS	19	30	PASS
2-Methylnaphthalene	Total	0.351	1	0.001	0.005	µg/L		0.5	0	70	47 - 130%	PASS	10	30	PASS
Acenaphthene	Total	0.382	1	0.001	0.005	µg/L		0.5	0	76	53 - 131%	PASS	13	30	PASS
Acenaphthylene	Total	0.353	1	0.001	0.005	µg/L		0.5	0	71	43 - 140%	PASS	8	30	PASS
Anthracene	Total	0.446	1	0.001	0.005	µg/L		0.5	0	89	58 - 135%	PASS	11	30	PASS
Benz[a]anthracene	Total	0.461	1	0.001	0.005	µg/L		0.5	0	92	55 - 145%	PASS	16	30	PASS
Benzo[a]pyrene	Total	0.438	1	0.001	0.005	µg/L		0.5	0	88	51 - 143%	PASS	13	30	PASS
Benzo[b]fluoranthene	Total	0.602	1	0.001	0.005	µg/L		0.5	0	120	46 - 165%	PASS	11	30	PASS
Benzo[e]pyrene	Total	0.557	1	0.001	0.005	µg/L		0.5	0	111	42 - 152%	PASS	13	30	PASS
Benzo[g,h,i]perylene	Total	0.434	1	0.001	0.005	µg/L		0.5	0	87	63 - 133%	PASS	11	30	PASS
Benzo[k]fluoranthene	Total	0.53	1	0.001	0.005	µg/L		0.5	0	106	56 - 145%	PASS	10	30	PASS
Biphenyl	Total	0.319	1	0.001	0.005	µg/L		0.5	0	64	56 - 119%	PASS	22	30	PASS
Chrysene	Total	0.391	1	0.001	0.005	µg/L		0.5	0	78	56 - 141%	PASS	14	30	PASS
Dibenz[a,h]anthracene	Total	0.572	1	0.001	0.005	µg/L		0.5	0	114	55 - 150%	PASS	11	30	PASS
Dibenzo[a,l]pyrene	Total	0.397	1	0.001	0.005	µg/L		0.5	0	79	50 - 150%	PASS	14	30	PASS
Dibenzothiophene	Total	0.467	1	0.001	0.005	µg/L		0.5	0	93	75 - 113%	PASS	10	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Fluoranthene	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	60 - 146%	PASS	10	30	PASS
Fluorene	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	58 - 131%	PASS	11	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.593	1	0.001	0.005	µg/L	0.5	0	119	50 - 151%	PASS	12	30	PASS
Naphthalene	Total	0.343	1	0.001	0.005	µg/L	0.5	0	69	41 - 126%	PASS	8	30	PASS
Perylene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	48 - 141%	PASS	12	30	PASS
Phenanthrene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	67 - 127%	PASS	11	30	PASS
Pyrene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	54 - 156%	PASS	12	30	PASS

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PHYSICS

TENTATIVELY

IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: 101917

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
28.9931	4.8202	1111	Anthracene-D10-	1719-06-8	96
26.2842	10.0350	2313	Benzoic acid, 2-ethylhexyl ester	5444-75-7	99
10.4291	0.9460	218	Succinimide	123-56-8	99

Concentration estimated using the response for Anthracene-d10

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Sample ID: Lab Blank Batch O-40028

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
28.9887	7.8272	1111	Anthracene-D10-	1719-06-8	97
26.2813	17.9453	2547	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98

Concentration estimated using the response for Anthracene-d10

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PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:	Lab PIN:	Carrier/Trading No.:	COC No.:				
Client Contact:	Shipping/Receiving	Phone:	Arada, Rachelle	State of Origin:	390-28638-1				
Company:	Physis Environmental Laboratories	Due Date Requested:	E-Mail:	Rachelle.Arada@eurofins.com	Page 1 of 1				
Address:	1904 Wright Circle	11/25/2022	Accreditations Required (See note):	State - Hawaii	Job #: 390-28638-1				
City:	Anaheim	TAT Requested (days):	Analysis Requested						
State, Zip:	CA, 92806								
Phone:		PO #:	<input type="checkbox"/> A - HCL <input type="checkbox"/> B - NaOH <input type="checkbox"/> C - Zn Acetate <input type="checkbox"/> D - Nitric Acid <input type="checkbox"/> E - NaHSO4 <input type="checkbox"/> F - NaOH <input type="checkbox"/> G - Ammonia <input type="checkbox"/> H - Acetic Acid <input type="checkbox"/> I - Ice <input type="checkbox"/> J - DI Water <input type="checkbox"/> K - EDTA <input type="checkbox"/> L - EDTA <input type="checkbox"/> M - Hexane <input type="checkbox"/> N - None <input type="checkbox"/> O - Amino2 <input type="checkbox"/> P - Na2CO3 <input type="checkbox"/> Q - Na2SO3 <input type="checkbox"/> R - Na2S2O3 <input type="checkbox"/> S - H2SO4 <input type="checkbox"/> T - TSP Dodecahydrate <input type="checkbox"/> U - Acetone <input type="checkbox"/> V - MCAA <input type="checkbox"/> W - pH 4-5 <input type="checkbox"/> Y - Trituma <input type="checkbox"/> Z - other (Specify)						
Project Name:	RED-HILL	Project #:	<input type="checkbox"/> Field Filtered Sample (Yes or No) <input type="checkbox"/> Perform MS/MSD (Yes or No) SUB (625 PAH Physis LL (EAL) + TICs) / 625 PAH Physis LL (EAL) + TICs						
Site:	Honolulu BWS Sites	SSOM#: SSON#: SSOM#:	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For						
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, B=Soil, O=Organic, BTR=Blood, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
MOANALUA WELLS (331-223-TP202) (380-28638-1)		11/15/22	10:31	Water	Water		X	2	See Attached Instructions
<p>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyze & accreditation compliance upon out 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/substrate/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other institutions 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.</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2</p> <p>Special Instructions/RC Requirements: _____</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: _____ Date/Time: 11/15/22 13:35 Company: EPA Company: _____ Received by: _____ Date/Time: 11/15/22 13:35 Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____</p> <p>Months</p>									

Project Iteration ID: 1407003-340
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111 Job # 380-28636-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: DA
2. Date Received: 11/18/22
3. Time Received: 1335
4. Client Name: Eurofins
5. Courier Information: (Please circle)
 - Client
 - UPS
 - Area Fast
 - DRS
 - FedEx
 - GSO/GLS
 - Ontrac
 - PAMS
 - PHYSIS Driver:
 - i. Start Time: _____
 - ii. End Time: _____
 - iii. Total Mileage: _____
 - iv. Number of Pickups: _____
6. Container Information: (Please put the # of containers or circle none)
 - Cooler
 - Styrofoam Cooler
 - Boxes
 - None
 - Carboy(s)
 - Carboy Trash Can(s)
 - Carboy Cap(s)
 - Other _____
7. What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
8. Randomly Selected Samples Temperature (°C): 2.1
 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: DA

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:



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

Date: 12-13-2022
EMAX Batch No.: 22K219

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-28636

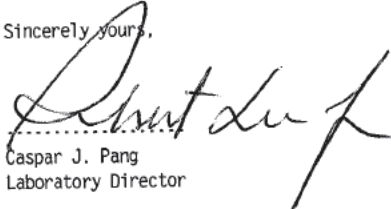
Enclosed is the Laboratory report for samples received on 11/18/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Co1 Date	Matrix	Analysis
380-28636-1	K219-01	11/15/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
380-28636-2	K219-02	11/15/22	WATER	TPH GASOLINE
380-28636-1MS	K219-01M	11/15/22	WATER	TPH GASOLINE
380-28636-1MSD	K219-01S	11/15/22	WATER	TPH GASOLINE

The results are summarized on the following pages.

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

Sincerely yours,


Caspar J. Pang
Laboratory Director

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

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

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



Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input checked="" type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>22K219</u> Recipient <u>Cecilia Chavez</u> Date <u>11/18/22</u> Time <u>12:02</u>
--	---------------------------	--

COC INSPECTION

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

Note: _____

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>1.0</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
Thermometer:	A - S/N _____	B - S/N <u>210760237</u>	C - S/N _____
			D - S/N <u>210760272</u>

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<i>[Large handwritten scribble covering the table content]</i>				

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

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? YES NO

LEGEND:

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

Sample Labeling <u>Maria Rivera</u>	SRF <u>Cecilia Chavez</u>	PM <u>MB</u>
Date <u>11/18/22</u>	Date <u>11/18/22</u>	Date <u>11/21/22</u>

REPORTING CONVENTIONS

DATA QUALIFIERS:

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

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

ACRONYMS AND ABBREVIATIONS:

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

DATES

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-28636

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

SDG#: 22K219



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-28636

SDG : 22K219

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

A total of two(2) water samples were received on 11/18/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

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

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VGH7K11B - 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. VGH7K11L/VGH7K11C 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 K219-01M/K219-01S. 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.

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SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 11/15/22 10:31
Project    : 380-28636                   Date Received: 11/18/22
Batch No.  : 22K219                       Date Extracted: 11/18/22 19:50
Sample ID  : 380-28636-1                 Date Analyzed: 11/18/22 19:50
Lab Samp ID: K219-01                     Dilution Factor: 1
Lab File ID: AK18008A                    Matrix: WATER
Ext Btch ID: 22VGH7K11                   % Moisture: NA
Calib. Ref.: AK18004A                    Instrument ID: H7
=====

```

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0377	0.0400	94	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: 11/15/22 10:31
Project     : 380-28636                   Date Received: 11/18/22
Batch No.   : 22K219                       Date Extracted: 11/18/22 21:40
Sample ID   : 380-28636-2                 Date Analyzed: 11/18/22 21:40
Lab Samp ID: K219-02                       Dilution Factor: 1
Lab File ID: AK18011A                       Matrix: WATER
Ext Btch ID: 22VGH7K11                     % Moisture: NA
Calib. Ref.: AK18004A                       Instrument ID: H7
=====

```

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0365	0.0400	91	60-140

Notes:

Parameter H-C Range

Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by : SCerva

Analyzed by : SCerva

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QC SUMMARIES

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

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=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 11/18/22 18:01
Project    : 380-28636                   Date Received: 11/18/22
Batch No.  : 22K219                       Date Extracted: 11/18/22 18:01
Sample ID  : MBLK1W                       Date Analyzed: 11/18/22 18:01
Lab Samp ID: VGH7K11B                     Dilution Factor: 1
Lab File ID: AK18005A                     Matrix: WATER
Ext Btch ID: 22VGH7K11                   % Moisture: NA
Calib. Ref.: AK18004A                    Instrument ID: H7
=====
  
```

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0395	0.0400	99	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 : 380-28636
BATCH NO. : 22K219
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VGH7K11B	VGH7K11L	VGH7K11C
LAB FILE ID	: AK18005A	AK18006A	AK18007A
DATE PREPARED	: 11/18/22 18:01	11/18/22 18:38	11/18/22 19:14
DATE ANALYZED	: 11/18/22 18:01	11/18/22 18:38	11/18/22 19:14
PREP BATCH	: 22VGH7K11	22VGH7K11	22VGH7K11
CALIBRATION REF:	AK18004A	AK18004A	AK18004A

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	0.486	97	0.500	0.508	102	4	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0468	117	0.0400	0.0469	117	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 : 380-28636
BATCH NO. : 22K219
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 380-28636-1	380-28636-1MS	380-28636-1MSD
LAB SAMPLE ID	: K219-01	K219-01M	K219-01S
LAB FILE ID	: AK18008A	AK18009A	AK18010A
DATE PREPARED	: 11/18/22 19:50	11/18/22 20:27	11/18/22 21:03
DATE ANALYZED	: 11/18/22 19:50	11/18/22 20:27	11/18/22 21:03
PREP BATCH	: 22VGH7K11	22VGH7K11	22VGH7K11
CALIBRATION REF:	AK18004A	AK18004A	AK18004A

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	0.489	98	0.500	0.469	94	4	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0472	118	0.0400	0.0454	114	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-28636

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22K219



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-28636

SDG : 22K219

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 11/18/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

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

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSK033WB - 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. DSK033WL/DSK033WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

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

Sample Analysis

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
 Project : 380-28636
 SDG NO. : 22K219
 Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis Date/Time	Extraction Date/Time	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSK033WB	1	NA	11/22/2214:47	11/21/2215:45	LK22009A	LK22003A	22DSK033W	Method Blank
LCS1W	DSK033WL	1	NA	11/22/2215:05	11/21/2215:45	LK22010A	LK22003A	22DSK033W	Lab Control Sample (LCS)
LCD1W	DSK033WC	1	NA	11/22/2215:24	11/21/2215:45	LK22011A	LK22003A	22DSK033W	LCS Duplicate
380-28636-1	K219-01	1	NA	11/22/2219:05	11/21/2215:45	LK22023A	LK22003A	22DSK033W	Field Sample

FN - Filename
 % Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 11/15/22 10:31
Project    : 380-28636                   Date Received: 11/18/22
Batch No.  : 22K219                       Date Extracted: 11/21/22 15:45
Sample ID  : 380-28636-1                 Date Analyzed: 11/22/22 19:05
Lab Samp ID: 22K219-01                   Dilution Factor: 1
Lab File ID: LK22023A                     Matrix: WATER
Ext Btch ID: 22DSK033W                   % Moisture: NA
Calib. Ref.: LK22003A                    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	0.458	0.500	92	60-130
Hexacosane	0.133	0.125	107	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 : POrreto Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 11/21/22 15:45
Project    : 380-28636                   Date Received: 11/21/22
Batch No.  : 22K219                       Date Extracted: 11/21/22 15:45
Sample ID  : MBLK1W                       Date Analyzed: 11/22/22 14:47
Lab Samp ID: DSK033WB                     Dilution Factor: 1
Lab File ID: LK22009A                     Matrix: WATER
Ext Btch ID: 22DSK033W                   % Moisture: NA
Calib. Ref.: LK22003A                    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	0.499	0.500	100	60-130
Hexacosane	0.135	0.125	108	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
Prepared by : POrreto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-28636
BATCH NO. : 22K219
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSK033WB	DSK033WL	DSK033WC
LAB FILE ID	: LK22009A	LK22010A	LK22011A
DATE PREPARED	: 11/21/22 15:45	11/21/22 15:45	11/21/22 15:45
DATE ANALYZED	: 11/22/22 14:47	11/22/22 15:05	11/22/22 15:24
PREP BATCH	: 22DSK033W	22DSK033W	22DSK033W
CALIBRATION REF:	LK22003A	LK22003A	LK22003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.84	114	2.50	2.59	104	9	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.522	104	0.500	0.493	99	60-130
Hexacosane	0.125	0.147	118	0.125	0.133	106	60-130

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

Monrovia, CA (Suite 100)

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

Chain of Custody Record



Environment Testing
 America

Client Information				Sampler: <u>EJ</u>	Lab PM: Frank, Debbie L.	Carrier Tracking No(s):	COC No: 380-9753-2757.3			
Client Contact: Dr. Ron Fenstemacher				Phone:	E-Mail: Debbie.Frank@et.eurofinsus.com	State of Origin:	Page: Page 3 of 3			
Company: City & County of Honolulu				PWSID:	Analysis Requested					
Address: 630 South Beretania Street Chemistry Lab				Due Date Requested:						
City: Honolulu				TAT Requested (days):	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil 525-2_PREC - (MOD) 525plus Plus TICs SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Total Number of containers 380-28636 COC	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)			
State, Zip: HI, 96843				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> 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: Hawaii				SSOW#:						
Sample Identification				Sample Date				Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)
				Preservation Code:						
HALAWA WELLS UNITS1&2(331-206-TP065)							Water			
MOANALUA WELLS (331-223-TP202)				11/15/22	1031	G	Water			
TB AIEA GULCH WELLS PUMP1 331-201-TP071							Water			
TB AIEA GULCH WELLS PUMP2 331-202-TP07							Water			
TB AIEA WELLS PUMPS1&2(260)331-203-TP400							Water			
TB HALAWA SHAFT (331-241-TP401)							Water			
TB HALAWA WELLS UNITS1&2(331-206-TP065)							Water			
TB MOANALUA WELLS (331-223-TP202)				11/15/22	1031		Water			
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:						
Empty Kit Relinquished by:				Date:	Time:	Method of Shipment: <u>FedEx 770512615127</u>				
Relinquished by: [Redacted]				Date/Time: 11/16/22 1200	Company:	Received by: <u>Plamita Markuraticia</u>	Date/Time: 11/17/22 1000			
Relinquished by:				Date/Time:	Company:	Received by:	Date/Time:			
Relinquished by:				Date/Time:	Company:	Received by:	Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>44(620A) T (750A) 3.3/32, gel-frozen</u>				



Shipping Order Form - Bottle Order



Environment Testing
America



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

Shipping Order ID: 9753

Ship Via: FedEx
When To Ship: 9/ 5/2022

Due On: 9/5/2022 11:59:00PM
Due After: 9/5/2022 12:00:00 AM

Ship To Information

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

Notes to Bottle/Shipping Department

Pack with Gel Ice
Label the cooler under the left hand handle with the ID of the samples that are in the cooler (if more than 1 cooler si used per 1 smaple ID lable cooler with "sample ID x of y)
Pack by Sample ID on the botte Labels (with one full set of tests per sample ID)
Send only medium to large coolers

CALL DEBBIE OR DAVIS IF THERE ARE QUESTIONS.

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

- Ready to Fill
- Preprinted COC
- Number of COC Copies
- Seals on Bottle
- Seals on Coolers
- Priority
- Return Shipment Labels
- Prepaid Return
- Monrovia, CA (Suite 100)
- Short Hold Times
- Temperature Control
- Rush

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

Bottle Order Information

Bottle Order: RUSH RED-HILL WEEKLY
 Bottle Order #: 2757
 Request From Client: 7/20/2022
 Date Order Posted: 7/20/2022 11:12:54AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
 Deliver By Date: 9/5/2022 11:59:00PM
 Lab Project Number: 38001111
 PWSID: HI0000331

Order Completion Information

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

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
6	2	16	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal	625 PAH + MS/MSD Volume	
6	4	24	Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal		
6	2	16	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal		
6	2	12	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - (MOD) 525plus Plus TICs	Water	Normal		
6	2	12	VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Trip Blank		

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acir	16
Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	16
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	12
VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acir	12
Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	24
Total Bottles:		80

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

Notes to Field Staff:



Scan QR code for field sampler instructions

SAMPLER FOLLOW 2 STAGE FIELD PRESERVATION FOR 8015 and 525.2

Health and Safety Notes:

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

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

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-28636-1

Login Number: 28636

List Source: Eurofins Eaton Monrovia

List Number: 1

Creator: Sanchez Velasquez, Gustavo

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	