

ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-123126-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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



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Definitions/Glossary

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

Job ID: 380-123126-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

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

Job ID: 380-123126-1

Job ID: 380-123126-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-123126-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/20/2024 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.3°C, 0.9°C and 2.3°C.

Receipt Exceptions

One or more containers for the following samples were received broken or leaking: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) (380-123126-3) and HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-123126-3[MS]). 8015 VIAL for MS HALAWA WELLS UNITS 1 & 2 recieved broken. Used one of the 3 vials for sample site for now.

GC/MS Semi VOA

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.024		0.0098	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-123126-2

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-123126-3

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.040		0.0099	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.017		0.0099	ug/L	1		525.2	Total/NA

Client Sample ID: TB: HALAWA WELLS UNITS 1&2 (331-206-TP065)

Lab Sample ID: 380-123126-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2,4'-DDD	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2,4'-DDE	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2,4'-DDT	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
2-Methylnaphthalene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
4,4'-DDD	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
4,4'-DDE	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
4,4'-DDT	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Acenaphthene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Acenaphthylene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Acetochlor	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Alachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
alpha-BHC	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
alpha-Chlordane	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Anthracene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 14:47	1
Atrazine	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Benz(a)anthracene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Benzo[a]pyrene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 14:47	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 14:47	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 14:47	1
beta-BHC	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		11/22/24 14:40	11/25/24 14:47	1
Bromacil	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Butachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Butylbenzylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 14:47	1
Chlorobenzilate	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Chloroneb	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Chlorpyrifos	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Chrysene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 14:47	1
delta-BHC	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		11/22/24 14:40	11/25/24 14:47	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Dieldrin	0.024		0.0098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Diethylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 14:47	1
Dimethylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 14:47	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		11/22/24 14:40	11/25/24 14:47	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Endosulfan sulfate	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Endrin	<0.0098		0.0098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Endrin aldehyde	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
EPTC	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Fluoranthene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
gamma-Chlordane	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Heptachlor	<0.0098		0.0098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Hexachlorobenzene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Isophorone	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Lindane	<0.0098		0.0098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Malathion	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Methoxychlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Metolachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Molinate	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Naphthalene	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Parathion	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Phenanthrene	<0.039		0.039	ug/L		11/22/24 14:40	11/25/24 14:47	1
Propachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Pyrene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Simazine	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Terbacil	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Terbutylazine	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Thiobencarb	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		11/22/24 14:40	11/25/24 14:47	1
trans-Nonachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 14:47	1
Trifluralin	<0.098		0.098	ug/L		11/22/24 14:40	11/25/24 14:47	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	11/22/24 14:40	11/25/24 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	11/22/24 14:40	11/25/24 14:47	1
Perylene-d12	93		70 - 130	11/22/24 14:40	11/25/24 14:47	1
Triphenylphosphate	103		70 - 130	11/22/24 14:40	11/25/24 14:47	1

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
2-Methylnaphthalene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Acenaphthene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Acenaphthylene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Anthracene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Benzo[a]anthracene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Benzo[a]pyrene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Chrysene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1

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Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Naphthalene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Phenanthrene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1
Pyrene	<0.19		0.19	ug/L		11/22/24 13:13	12/04/24 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		28 - 127	11/22/24 13:13	12/04/24 17:32	1
2-Fluorobiphenyl (Surr)	70		31 - 120	11/22/24 13:13	12/04/24 17:32	1
2-Fluorophenol (Surr)	47		17 - 120	11/22/24 13:13	12/04/24 17:32	1
Nitrobenzene-d5 (Surr)	79		27 - 120	11/22/24 13:13	12/04/24 17:32	1
Phenol-d6 (Surr)	28		10 - 120	11/22/24 13:13	12/04/24 17:32	1
p-Terphenyl-d14 (Surr)	77		45 - 120	11/22/24 13:13	12/04/24 17:32	1

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	11/22/24 13:13	12/05/24 20:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		33 - 139	11/22/24 13:13	12/05/24 20:57	1
2-Fluorobiphenyl (Surr)	71		33 - 126	11/22/24 13:13	12/05/24 20:57	1
2-Fluorophenol (Surr)	41		12 - 120	11/22/24 13:13	12/05/24 20:57	1
Nitrobenzene-d5 (Surr)	73		36 - 120	11/22/24 13:13	12/05/24 20:57	1
Phenol-d6 (Surr)	23		10 - 120	11/22/24 13:13	12/05/24 20:57	1
p-Terphenyl-d14 (Surr)	79		47 - 131	11/22/24 13:13	12/05/24 20:57	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			11/29/24 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		11/29/24 17:53	1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		11/23/24 11:38	11/27/24 23:36	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		11/23/24 11:38	11/27/24 23:36	1
C8-C18	<25		25	ug/L		11/23/24 11:38	11/27/24 23:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	78		60 - 130	11/23/24 11:38	11/27/24 23:36	1

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-123126-2

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			11/29/24 15:03	1

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-123126-2

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		38 - 134		11/29/24 15:03	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-123126-3

(331-206-TP065)

Matrix: Drinking Water

Date Collected: 11/18/24 09:48

PWSID Number: HI0000331

Date Received: 11/20/24 09:31

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2,4'-DDD	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2,4'-DDE	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2,4'-DDT	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
2-Methylnaphthalene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
4,4'-DDD	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
4,4'-DDE	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
4,4'-DDT	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Acenaphthene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Acenaphthylene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Acetochlor	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Alachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
alpha-BHC	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
alpha-Chlordane	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Anthracene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 15:07	1
Atrazine	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Benz(a)anthracene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Benzo[a]pyrene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 15:07	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 15:07	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 15:07	1
beta-BHC	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		11/22/24 14:40	11/25/24 15:07	1
Bromacil	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Butachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Butylbenzylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 15:07	1
Chlorobenzilate	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Chloroneb	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Chlorpyrifos	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Chrysene	<0.020		0.020	ug/L		11/22/24 14:40	11/25/24 15:07	1
delta-BHC	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		11/22/24 14:40	11/25/24 15:07	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Dieldrin	0.040		0.0099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Diethylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 15:07	1
Dimethylphthalate	<0.49		0.49	ug/L		11/22/24 14:40	11/25/24 15:07	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		11/22/24 14:40	11/25/24 15:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-123126-3

Date Collected: 11/18/24 09:48

Matrix: Drinking Water

Date Received: 11/20/24 09:31

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Endosulfan sulfate	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Endrin	<0.0099		0.0099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Endrin aldehyde	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
EPTC	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Fluoranthene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Fluorene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
gamma-Chlordane	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Heptachlor	<0.0099		0.0099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Heptachlor epoxide (isomer B)	0.017		0.0099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Hexachlorobenzene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Isophorone	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Lindane	<0.0099		0.0099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Malathion	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Methoxychlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Metolachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Molinate	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Naphthalene	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Parathion	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Phenanthrene	<0.039		0.039	ug/L		11/22/24 14:40	11/25/24 15:07	1
Propachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Pyrene	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Simazine	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Terbacil	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Terbutylazine	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Thiobencarb	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		11/22/24 14:40	11/25/24 15:07	1
trans-Nonachlor	<0.049		0.049	ug/L		11/22/24 14:40	11/25/24 15:07	1
Trifluralin	<0.099		0.099	ug/L		11/22/24 14:40	11/25/24 15:07	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>11/22/24 14:40</i>	<i>11/25/24 15:07</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>		<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2-Nitro-m-xylene</i>	<i>98</i>		<i>70 - 130</i>		<i>11/22/24 14:40</i>	<i>11/25/24 15:07</i>	<i>1</i>
<i>Perylene-d12</i>	<i>85</i>		<i>70 - 130</i>		<i>11/22/24 14:40</i>	<i>11/25/24 15:07</i>	<i>1</i>
<i>Triphenylphosphate</i>	<i>95</i>		<i>70 - 130</i>		<i>11/22/24 14:40</i>	<i>11/25/24 15:07</i>	<i>1</i>

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
2-Methylnaphthalene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Acenaphthene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Acenaphthylene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-123126-3

Date Collected: 11/18/24 09:48

Matrix: Drinking Water

Date Received: 11/20/24 09:31

PWSID Number: HI0000331

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Benzo[a]anthracene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Benzo[a]pyrene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Chrysene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Fluoranthene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Fluorene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Naphthalene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Phenanthrene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1
Pyrene	<0.19		0.19	ug/L		11/22/24 13:13	11/27/24 05:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	65		28 - 127	11/22/24 13:13	11/27/24 05:01	1
2-Fluorobiphenyl (Surr)	64		31 - 120	11/22/24 13:13	11/27/24 05:01	1
2-Fluorophenol (Surr)	45		17 - 120	11/22/24 13:13	11/27/24 05:01	1
Nitrobenzene-d5 (Surr)	72		27 - 120	11/22/24 13:13	11/27/24 05:01	1
Phenol-d6 (Surr)	24		10 - 120	11/22/24 13:13	11/27/24 05:01	1
p-Terphenyl-d14 (Surr)	69		45 - 120	11/22/24 13:13	11/27/24 05:01	1

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methylene Chloride	13	T J N	ug/L		1.43	75-09-2	11/22/24 13:13	12/05/24 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		33 - 139	11/22/24 13:13	12/05/24 21:20	1
2-Fluorobiphenyl (Surr)	64		33 - 126	11/22/24 13:13	12/05/24 21:20	1
2-Fluorophenol (Surr)	38		12 - 120	11/22/24 13:13	12/05/24 21:20	1
Nitrobenzene-d5 (Surr)	71		36 - 120	11/22/24 13:13	12/05/24 21:20	1
Phenol-d6 (Surr)	23		10 - 120	11/22/24 13:13	12/05/24 21:20	1
p-Terphenyl-d14 (Surr)	74		47 - 131	11/22/24 13:13	12/05/24 21:20	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			11/29/24 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134		11/29/24 14:11	1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		11/23/24 11:38	11/27/24 23:57	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		11/23/24 11:38	11/27/24 23:57	1
C8-C18	<26		26	ug/L		11/23/24 11:38	11/27/24 23:57	1

Client Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-123126-3

Date Collected: 11/18/24 09:48

Matrix: Drinking Water

Date Received: 11/20/24 09:31

PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	81		60 - 130	11/23/24 11:38	11/27/24 23:57	1

**Client Sample ID: TB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-123126-4

Date Collected: 11/18/24 09:48

Matrix: Water

Date Received: 11/20/24 09:31

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			11/29/24 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		11/29/24 14:37	1

Action Limit Summary

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

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	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-123126-3

(331-206-TP065)

PWSID Number: HI0000331

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0099		ug/L	2	0.0099	525.2	Total/NA
Heptachlor	<0.0099		ug/L	0.4	0.0099	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.017		ug/L	0.2	0.0099	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0099		ug/L	0.2	0.0099	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-123126-1
SDG: Weekly

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)
380-123126-3	HALAWA WELLS UNITS 1 & 2 F	98	85	95

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)
380-122999-N-1-A MS	Matrix Spike	98	91	100
380-123012-N-1-B DU	Duplicate	97	88	96
380-123126-1	Ka'amilo Wells	98	93	103
LCS 380-120288/23-A	Lab Control Sample	98	92	101
LCS 380-120288/24-A	Lab Control Sample Dup	97	92	100
MB 380-120288/21-A	Method Blank	96	83	99
MRL 380-120288/22-A	Lab Control Sample	97	83	98

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-123126-3	HALAWA WELLS UNITS 1 & 2 F	66	64	38	71	23	74

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-123126-1	Ka'amilo Wells	81	71	41	73	23	79
MB 570-506497/1-A	Method Blank	67	59	42	64	24	79

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)

Surrogate Summary

Client: City & County of Honolulu

Job ID: 380-123126-1

Project/Site: RED-HILL

SDG: Weekly

FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-123126-3	HALAWA WELLS UNITS 1 & 2 F	65	64	45	72	24	69
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	75	75	50	69	30	75
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	79	79	54	72	32	73

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-123126-1	Ka'amilo Wells	72	70	47	79	28	77
LCS 570-506497/2-A	Lab Control Sample	81	80	60	74	36	79
LCSD 570-506497/3-A	Lab Control Sample Dup	76	70	48	64	30	74
MB 570-506497/1-A	Method Blank	70	66	49	75	27	79

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-123126-3	HALAWA WELLS UNITS 1 & 2 F	87
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	94
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Surrogate Summary

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

Job ID: 380-123126-1
SDG: Weekly

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-123126-1	Ka'amilo Wells	86
380-123126-2	TB: Ka'amilo Wells	81
380-123126-4	TB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	84
LCS 570-508548/4	Lab Control Sample	93
LCSD 570-508548/5	Lab Control Sample Dup	93
MB 570 508548/6	Method Blank	85
MRL 570-508548/3	Lab Control Sample	89

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-123126-3	HALAWA WELLS UNITS 1 & 2 F	81
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	88
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	89

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-123126-1	Ka'amilo Wells	78
LCS 570-506858/2-A	Lab Control Sample	90
LCSD 570-506858/3-A	Lab Control Sample Dup	87
MB 570-506858/1-A	Method Blank	87
MRL 570-506858/4-A	Lab Control Sample	84

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-123126-1
 SDG: Weekly

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

Lab Sample ID: MB 380-120288/21-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120288

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2,4'-DDD	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2,4'-DDE	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2,4'-DDT	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2,4-Dinitrotoluene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2,6-Dinitrotoluene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
2-Methylnaphthalene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
4,4'-DDD	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
4,4'-DDE	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
4,4'-DDT	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Acenaphthene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Acenaphthylene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Acetochlor	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Alachlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
alpha-BHC	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
alpha-Chlordane	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Anthracene	<0.020		0.020	ug/L		11/22/24 13:15	11/25/24 09:06	1
Atrazine	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Benz(a)anthracene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Benzo[a]pyrene	<0.020		0.020	ug/L		11/22/24 13:15	11/25/24 09:06	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		11/22/24 13:15	11/25/24 09:06	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		11/22/24 13:15	11/25/24 09:06	1
beta-BHC	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		11/22/24 13:15	11/25/24 09:06	1
Bromacil	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Butachlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Butylbenzylphthalate	<0.50		0.50	ug/L		11/22/24 13:15	11/25/24 09:06	1
Chlorobenzilate	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Chloroneb	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Chlorothalonil (Draconil, Bravo)	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Chlorpyrifos	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Chrysene	<0.020		0.020	ug/L		11/22/24 13:15	11/25/24 09:06	1
delta-BHC	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		11/22/24 13:15	11/25/24 09:06	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Dieldrin	<0.010		0.010	ug/L		11/22/24 13:15	11/25/24 09:06	1
Diethylphthalate	<0.50		0.50	ug/L		11/22/24 13:15	11/25/24 09:06	1
Dimethylphthalate	<0.50		0.50	ug/L		11/22/24 13:15	11/25/24 09:06	1
Di-n-butyl phthalate	<1.0		1.0	ug/L		11/22/24 13:15	11/25/24 09:06	1
Di-n-octyl phthalate	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Endosulfan I (Alpha)	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Endosulfan II (Beta)	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Endosulfan sulfate	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Endrin	<0.010		0.010	ug/L		11/22/24 13:15	11/25/24 09:06	1
Endrin aldehyde	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
EPTC	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1

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QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: MB 380-120288/21-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120288

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Fluorene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
gamma-Chlordane	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Heptachlor	<0.010		0.010	ug/L		11/22/24 13:15	11/25/24 09:06	1
Heptachlor epoxide (isomer B)	<0.010		0.010	ug/L		11/22/24 13:15	11/25/24 09:06	1
Hexachlorobenzene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Isophorone	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Lindane	<0.010		0.010	ug/L		11/22/24 13:15	11/25/24 09:06	1
Malathion	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Methoxychlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Metolachlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Molinate	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Naphthalene	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Parathion	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Pendimethalin (Penoxaline)	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Phenanthrene	<0.040		0.040	ug/L		11/22/24 13:15	11/25/24 09:06	1
Propachlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Pyrene	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Simazine	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Terbacil	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Terbutylazine	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Thiobencarb	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		11/22/24 13:15	11/25/24 09:06	1
trans-Nonachlor	<0.050		0.050	ug/L		11/22/24 13:15	11/25/24 09:06	1
Trifluralin	<0.10		0.10	ug/L		11/22/24 13:15	11/25/24 09:06	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
9-Octadecenamide, (Z)-	1.15	T J N	ug/L		7.96	301-02-0	11/22/24 13:15	11/25/24 09:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	11/22/24 13:15	11/25/24 09:06	1
Perylene-d12	83		70 - 130	11/22/24 13:15	11/25/24 09:06	1
Triphenylphosphate	99		70 - 130	11/22/24 13:15	11/25/24 09:06	1

Lab Sample ID: LCS 380-120288/23-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.98	1.96		ug/L		99	70 - 130
2,4'-DDD	1.98	2.06		ug/L		104	70 - 130
2,4'-DDE	1.98	2.04		ug/L		103	70 - 130
2,4'-DDT	1.98	2.07		ug/L		104	70 - 130
2,4-Dinitrotoluene	1.98	1.61		ug/L		81	70 - 130
2,6-Dinitrotoluene	1.98	1.73		ug/L		87	70 - 130
2-Methylnaphthalene	1.98	1.98		ug/L		100	70 - 130

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QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: LCS 380-120288/23-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.98	2.08		ug/L		105	70 - 130
4,4'-DDE	1.98	2.03		ug/L		103	70 - 130
4,4'-DDT	1.98	2.05		ug/L		103	70 - 130
Acenaphthene	1.98	1.93		ug/L		97	70 - 130
Acenaphthylene	1.98	1.96		ug/L		99	70 - 130
Acetochlor	1.98	2.12		ug/L		107	70 - 130
Alachlor	1.98	2.16		ug/L		109	70 - 130
alpha-BHC	1.98	1.95		ug/L		98	70 - 130
alpha-Chlordane	1.98	2.07		ug/L		105	70 - 130
Anthracene	1.98	1.85		ug/L		93	70 - 130
Atrazine	1.98	2.07		ug/L		105	70 - 130
Benz(a)anthracene	1.98	1.83		ug/L		92	70 - 130
Benzo[a]pyrene	1.98	1.75		ug/L		88	70 - 130
Benzo[b]fluoranthene	1.98	2.09		ug/L		105	70 - 130
Benzo[g,h,i]perylene	1.98	2.08		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.98	2.04		ug/L		103	70 - 130
beta-BHC	1.98	1.98		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	2.25		ug/L		114	70 - 130
Bromacil	1.98	1.94		ug/L		98	70 - 130
Butachlor	1.98	2.24		ug/L		113	70 - 130
Butylbenzylphthalate	1.98	2.19		ug/L		111	70 - 130
Chlorobenzilate	1.98	1.94		ug/L		98	70 - 130
Chloroneb	1.98	2.25		ug/L		114	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.22		ug/L		112	70 - 130
Chlorpyrifos	1.98	2.13		ug/L		107	70 - 130
Chrysene	1.98	1.96		ug/L		99	70 - 130
delta-BHC	1.98	1.97		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.05		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.98	1.69		ug/L		86	70 - 130
Diclorvos (DDVP)	1.98	1.97		ug/L		99	70 - 130
Dieldrin	1.98	2.02		ug/L		102	70 - 130
Diethylphthalate	1.98	2.05		ug/L		103	70 - 130
Dimethylphthalate	1.98	2.06		ug/L		104	70 - 130
Di-n-butyl phthalate	3.96	4.24		ug/L		107	70 - 130
Di-n-octyl phthalate	1.98	1.97		ug/L		99	70 - 130
Endosulfan I (Alpha)	1.98	2.03		ug/L		103	70 - 130
Endosulfan II (Beta)	1.98	2.06		ug/L		104	70 - 130
Endosulfan sulfate	1.98	2.03		ug/L		103	70 - 130
Endrin	1.98	1.96		ug/L		99	70 - 130
Endrin aldehyde	1.98	1.96		ug/L		99	60 - 130
EPTC	1.98	2.06		ug/L		104	70 - 130
Fluoranthene	1.98	2.09		ug/L		105	70 - 130
Fluorene	1.98	2.04		ug/L		103	70 - 130
gamma-Chlordane	1.98	2.08		ug/L		105	70 - 130
Heptachlor	1.98	1.98		ug/L		100	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.03		ug/L		102	70 - 130
Hexachlorobenzene	1.98	1.87		ug/L		94	70 - 130
Hexachlorocyclopentadiene	1.98	1.86		ug/L		94	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	1.98		ug/L		100	70 - 130

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QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: LCS 380-120288/23-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.98	1.97		ug/L		99	70 - 130
Lindane	1.98	1.81		ug/L		91	70 - 130
Malathion	1.98	2.10		ug/L		106	70 - 130
Methoxychlor	1.98	1.92		ug/L		97	70 - 130
Metolachlor	1.98	2.14		ug/L		108	70 - 130
Molinate	1.98	2.06		ug/L		104	70 - 130
Naphthalene	1.98	1.96		ug/L		99	70 - 130
Parathion	1.98	1.95		ug/L		98	70 - 130
Pendimethalin (Penoxaline)	1.98	1.86		ug/L		94	70 - 130
Phenanthrene	1.98	1.90		ug/L		96	70 - 130
Propachlor	1.98	2.03		ug/L		103	70 - 130
Pyrene	1.98	2.04		ug/L		103	70 - 130
Simazine	1.98	2.07		ug/L		104	70 - 130
Terbacil	1.98	1.97		ug/L		99	70 - 130
Terbutylazine	1.98	2.12		ug/L		107	70 - 130
Thiobencarb	1.98	2.12		ug/L		107	70 - 130
trans-Nonachlor	1.98	2.06		ug/L		104	70 - 130
Trifluralin	1.98	1.80		ug/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	101		70 - 130

Lab Sample ID: LCSD 380-120288/24-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.99	1.97		ug/L		99	70 - 130	0	20
2,4'-DDD	1.99	2.08		ug/L		105	70 - 130	1	20
2,4'-DDE	1.99	2.07		ug/L		104	70 - 130	1	20
2,4'-DDT	1.99	2.09		ug/L		105	70 - 130	1	20
2,4-Dinitrotoluene	1.99	1.80		ug/L		90	70 - 130	11	20
2,6-Dinitrotoluene	1.99	1.84		ug/L		93	70 - 130	6	20
2-Methylnaphthalene	1.99	1.98		ug/L		100	70 - 130	0	20
4,4'-DDD	1.99	2.08		ug/L		105	70 - 130	0	20
4,4'-DDE	1.99	2.03		ug/L		102	70 - 130	0	20
4,4'-DDT	1.99	2.09		ug/L		105	70 - 130	2	20
Acenaphthene	1.99	1.96		ug/L		99	70 - 130	2	20
Acenaphthylene	1.99	2.02		ug/L		102	70 - 130	3	20
Acetochlor	1.99	2.12		ug/L		107	70 - 130	0	20
Alachlor	1.99	2.15		ug/L		108	70 - 130	0	20
alpha-BHC	1.99	2.04		ug/L		103	70 - 130	5	20
alpha-Chlordane	1.99	2.10		ug/L		106	70 - 130	1	20
Anthracene	1.99	1.90		ug/L		96	70 - 130	2	20
Atrazine	1.99	2.22		ug/L		112	70 - 130	7	20
Benz(a)anthracene	1.99	1.82		ug/L		92	70 - 130	0	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-120288/24-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Benzo[a]pyrene	1.99	1.81		ug/L		91	70 - 130	3	20	
Benzo[b]fluoranthene	1.99	2.04		ug/L		103	70 - 130	2	20	
Benzo[g,h,i]perylene	1.99	2.01		ug/L		101	70 - 130	3	20	
Benzo[k]fluoranthene	1.99	2.17		ug/L		109	70 - 130	6	20	
beta-BHC	1.99	2.08		ug/L		105	70 - 130	5	20	
Bis(2-ethylhexyl) phthalate	1.99	2.24		ug/L		113	70 - 130	0	20	
Bromacil	1.99	2.04		ug/L		103	70 - 130	5	20	
Butachlor	1.99	2.26		ug/L		114	70 - 130	1	20	
Butylbenzylphthalate	1.99	2.19		ug/L		110	70 - 130	0	20	
Chlorobenzilate	1.99	1.96		ug/L		98	70 - 130	1	20	
Chloroneb	1.99	2.26		ug/L		114	70 - 130	0	20	
Chlorothalonil (Draconil, Bravo)	1.99	2.02		ug/L		102	70 - 130	10	20	
Chlorpyrifos	1.99	2.16		ug/L		109	70 - 130	1	20	
Chrysene	1.99	1.93		ug/L		97	70 - 130	2	20	
delta-BHC	1.99	2.13		ug/L		107	70 - 130	8	20	
Di(2-ethylhexyl)adipate	1.99	2.02		ug/L		102	70 - 130	1	20	
Dibenz(a,h)anthracene	1.99	1.79		ug/L		90	70 - 130	6	20	
Diclorvos (DDVP)	1.99	2.07		ug/L		104	70 - 130	5	20	
Dieldrin	1.99	2.02		ug/L		102	70 - 130	0	20	
Diethylphthalate	1.99	2.14		ug/L		108	70 - 130	5	20	
Dimethylphthalate	1.99	2.12		ug/L		107	70 - 130	3	20	
Di-n-butyl phthalate	3.97	4.30		ug/L		108	70 - 130	1	20	
Di-n-octyl phthalate	1.99	1.92		ug/L		97	70 - 130	2	20	
Endosulfan I (Alpha)	1.99	2.01		ug/L		101	70 - 130	1	20	
Endosulfan II (Beta)	1.99	2.04		ug/L		103	70 - 130	1	20	
Endosulfan sulfate	1.99	2.06		ug/L		104	70 - 130	1	20	
Endrin	1.99	1.95		ug/L		98	70 - 130	0	20	
Endrin aldehyde	1.99	2.02		ug/L		102	60 - 130	3	20	
EPTC	1.99	2.07		ug/L		104	70 - 130	1	20	
Fluoranthene	1.99	2.11		ug/L		106	70 - 130	1	20	
Fluorene	1.99	2.11		ug/L		106	70 - 130	4	20	
gamma-Chlordane	1.99	2.07		ug/L		104	70 - 130	0	20	
Heptachlor	1.99	1.97		ug/L		99	70 - 130	0	20	
Heptachlor epoxide (isomer B)	1.99	2.03		ug/L		102	70 - 130	0	20	
Hexachlorobenzene	1.99	1.93		ug/L		97	70 - 130	3	20	
Hexachlorocyclopentadiene	1.99	1.97		ug/L		99	70 - 130	6	20	
Indeno[1,2,3-cd]pyrene	1.99	2.00		ug/L		100	70 - 130	1	20	
Isophorone	1.99	1.99		ug/L		100	70 - 130	1	20	
Lindane	1.99	1.91		ug/L		96	70 - 130	6	20	
Malathion	1.99	2.14		ug/L		108	70 - 130	2	20	
Methoxychlor	1.99	1.98		ug/L		99	70 - 130	3	20	
Metolachlor	1.99	2.14		ug/L		108	70 - 130	0	20	
Molinate	1.99	2.11		ug/L		106	70 - 130	2	20	
Naphthalene	1.99	1.96		ug/L		99	70 - 130	0	20	
Parathion	1.99	2.04		ug/L		103	70 - 130	4	20	
Pendimethalin (Penoxaline)	1.99	1.89		ug/L		95	70 - 130	2	20	
Phenanthrene	1.99	1.92		ug/L		97	70 - 130	1	20	
Propachlor	1.99	2.13		ug/L		107	70 - 130	5	20	
Pyrene	1.99	2.09		ug/L		105	70 - 130	2	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-120288/24-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.99	2.20		ug/L		111	70 - 130	6	20
Terbacil	1.99	2.17		ug/L		109	70 - 130	10	20
Terbuthylazine	1.99	2.22		ug/L		112	70 - 130	5	20
Thiobencarb	1.99	2.14		ug/L		108	70 - 130	1	20
trans-Nonachlor	1.99	2.03		ug/L		102	70 - 130	2	20
Trifluralin	1.99	1.85		ug/L		93	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	100		70 - 130

Lab Sample ID: MRL 380-120288/22-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0996	0.115		ug/L		116	50 - 150
2,4'-DDD	0.0996	0.0966	J	ug/L		97	50 - 150
2,4'-DDE	0.0996	0.111		ug/L		111	50 - 150
2,4'-DDT	0.0996	0.0957	J	ug/L		96	50 - 150
2,4-Dinitrotoluene	0.0996	0.102		ug/L		102	50 - 150
2,6-Dinitrotoluene	0.0996	0.103		ug/L		103	50 - 150
2-Methylnaphthalene	0.0996	0.107		ug/L		107	50 - 150
4,4'-DDD	0.0996	0.109		ug/L		109	50 - 150
4,4'-DDE	0.0996	0.106		ug/L		106	50 - 150
4,4'-DDT	0.0996	0.0932	J	ug/L		94	50 - 150
Acenaphthene	0.0996	0.102		ug/L		103	50 - 150
Acenaphthylene	0.0996	0.0996	J	ug/L		100	50 - 150
Acetochlor	0.0996	0.114		ug/L		115	50 - 150
Alachlor	0.0498	0.0571		ug/L		115	50 - 150
alpha-BHC	0.0996	0.113		ug/L		114	50 - 150
alpha-Chlordane	0.0249	<0.029		ug/L		105	50 - 150
Anthracene	0.0199	0.0203		ug/L		102	50 - 150
Atrazine	0.0498	0.0537		ug/L		108	50 - 150
Benz(a)anthracene	0.0498	0.0492	J	ug/L		99	50 - 150
Benzo[a]pyrene	0.0199	0.0237		ug/L		119	50 - 150
Benzo[b]fluoranthene	0.0199	0.0193	J	ug/L		97	50 - 150
Benzo[g,h,i]perylene	0.0498	0.0384	J	ug/L		77	50 - 150
Benzo[k]fluoranthene	0.0199	0.0190	J	ug/L		95	50 - 150
beta-BHC	0.0996	0.122		ug/L		122	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.561	J	ug/L		94	50 - 150
Bromacil	0.0996	0.103		ug/L		103	50 - 150
Butachlor	0.0498	0.0563		ug/L		113	50 - 150
Butylbenzylphthalate	0.498	0.575		ug/L		115	50 - 150
Chlorobenzilate	0.0996	0.107		ug/L		108	50 - 150
Chloroneb	0.0996	0.0906	J	ug/L		91	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0996	0.0902	J	ug/L		91	50 - 150

QC Sample Results

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

Job ID: 380-123126-1
 SDG: Weekly

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

Lab Sample ID: MRL 380-120288/22-A
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0498	0.0536		ug/L		108	50 - 150
Chrysene	0.0199	0.0231		ug/L		116	50 - 150
delta-BHC	0.0996	0.115		ug/L		116	50 - 150
Di(2-ethylhexyl)adipate	0.597	0.593	J	ug/L		99	50 - 150
Dibenz(a,h)anthracene	0.0498	0.0430	J	ug/L		86	50 - 150
Diclorvos (DDVP)	0.0498	0.0559		ug/L		112	50 - 150
Dieldrin	0.00996	0.0124		ug/L		124	50 - 150
Diethylphthalate	0.498	0.542		ug/L		109	50 - 150
Dimethylphthalate	0.498	0.531		ug/L		107	50 - 150
Di-n-butyl phthalate	0.498	0.591	J	ug/L		119	49 - 243
Di-n-octyl phthalate	0.0996	0.0866	J	ug/L		87	50 - 150
Endosulfan I (Alpha)	0.0996	0.103		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0996	0.102		ug/L		103	50 - 150
Endosulfan sulfate	0.0996	0.112		ug/L		113	50 - 150
Endrin	0.00996	0.0107		ug/L		107	50 - 150
Endrin aldehyde	0.0996	0.0977	J	ug/L		98	50 - 150
EPTC	0.0996	0.0997	J	ug/L		100	50 - 150
Fluoranthene	0.0996	0.101		ug/L		101	50 - 150
Fluorene	0.0498	0.0534		ug/L		107	50 - 150
gamma-Chlordane	0.0249	0.0232	J	ug/L		93	50 - 150
Heptachlor	0.00996	0.0107		ug/L		108	50 - 150
Heptachlor epoxide (isomer B)	0.00996	0.0107		ug/L		107	50 - 150
Hexachlorobenzene	0.0498	0.0491	J	ug/L		99	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0460	J	ug/L		92	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	0.0384	J	ug/L		77	50 - 150
Isophorone	0.0996	0.122		ug/L		122	50 - 150
Lindane	0.00996	0.0133		ug/L		134	50 - 150
Malathion	0.0996	0.0958	J	ug/L		96	50 - 150
Methoxychlor	0.0498	0.0559		ug/L		112	50 - 150
Metolachlor	0.0498	0.0589		ug/L		118	50 - 150
Molinate	0.0996	0.104		ug/L		104	50 - 150
Naphthalene	0.0996	0.111		ug/L		112	50 - 150
Parathion	0.0996	0.0824	J	ug/L		83	50 - 150
Pendimethalin (Penoxaline)	0.0996	0.0900	J	ug/L		90	50 - 150
Phenanthrene	0.0398	0.0444		ug/L		112	50 - 150
Propachlor	0.0498	0.0570		ug/L		114	50 - 150
Pyrene	0.0498	0.0501		ug/L		101	50 - 150
Simazine	0.0498	0.0571		ug/L		115	50 - 150
Terbacil	0.0996	0.0900	J	ug/L		90	50 - 150
Terbutylazine	0.0996	0.113		ug/L		113	50 - 150
Thiobencarb	0.0996	0.106		ug/L		106	50 - 150
trans-Nonachlor	0.0249	<0.026		ug/L		96	50 - 150
Trifluralin	0.0996	0.0931	J	ug/L		93	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	83		70 - 130
Triphenylphosphate	98		70 - 130

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: 380-122999-N-1-A MS
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.097		1.92	1.92		ug/L		100	70 - 130
2,4'-DDD	<0.097		1.92	1.99		ug/L		104	70 - 130
2,4'-DDE	<0.097		1.92	1.96		ug/L		102	70 - 130
2,4'-DDT	<0.097		1.92	1.95		ug/L		101	70 - 130
2,4-Dinitrotoluene	<0.097		1.92	1.71		ug/L		89	70 - 130
2,6-Dinitrotoluene	<0.097		1.92	1.78		ug/L		92	70 - 130
2-Methylnaphthalene	<0.097		1.92	1.93		ug/L		100	70 - 130
4,4'-DDD	<0.097		1.92	1.99		ug/L		103	70 - 130
4,4'-DDE	<0.097		1.92	1.94		ug/L		101	70 - 130
4,4'-DDT	<0.097		1.92	1.95		ug/L		101	70 - 130
Acenaphthene	<0.097		1.92	1.91		ug/L		99	70 - 130
Acenaphthylene	<0.097		1.92	1.99		ug/L		103	70 - 130
Acetochlor	<0.097		1.92	2.03		ug/L		105	70 - 130
Alachlor	<0.048		1.92	2.07		ug/L		107	70 - 130
alpha-BHC	<0.097		1.92	1.98		ug/L		103	70 - 130
alpha-Chlordane	<0.048		1.92	1.99		ug/L		103	70 - 130
Anthracene	<0.019	F1	1.92	1.26	F1	ug/L		65	70 - 130
Atrazine	<0.048		1.92	2.13		ug/L		111	70 - 130
Benz(a)anthracene	<0.048		1.92	1.70		ug/L		88	70 - 130
Benzo[a]pyrene	<0.019		1.92	1.51		ug/L		79	70 - 130
Benzo[b]fluoranthene	<0.019		1.92	1.94		ug/L		101	70 - 130
Benzo[g,h,i]perylene	<0.048		1.92	1.86		ug/L		97	70 - 130
Benzo[k]fluoranthene	<0.019		1.92	1.93		ug/L		100	70 - 130
beta-BHC	<0.097		1.92	1.97		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.92	1.99		ug/L		103	70 - 130
Bromacil	<0.097		1.92	1.93		ug/L		100	70 - 130
Butachlor	<0.048		1.92	2.15		ug/L		111	70 - 130
Butylbenzylphthalate	<0.48		1.92	2.15		ug/L		112	70 - 130
Chlorobenzilate	<0.097		1.92	1.85		ug/L		96	70 - 130
Chloroneb	<0.097		1.92	2.02		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.92	2.06		ug/L		107	70 - 130
Chlorpyrifos	<0.048		1.92	2.08		ug/L		108	70 - 130
Chrysene	<0.019		1.92	1.91		ug/L		99	70 - 130
delta-BHC	<0.097		1.92	1.94		ug/L		101	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.92	1.86		ug/L		97	70 - 130
Dibenz(a,h)anthracene	<0.048		1.92	1.68		ug/L		87	70 - 130
Diclorvos (DDVP)	<0.048		1.92	2.00		ug/L		104	70 - 130
Dieldrin	<0.0097		1.92	1.94		ug/L		101	70 - 130
Diethylphthalate	<0.48		1.92	2.07		ug/L		107	70 - 130
Dimethylphthalate	<0.48		1.92	2.05		ug/L		106	70 - 130
Di-n-butyl phthalate	<0.97		3.85	4.13		ug/L		107	70 - 130
Di-n-octyl phthalate	<0.097		1.92	1.67		ug/L		87	70 - 130
Endosulfan I (Alpha)	<0.097		1.92	1.91		ug/L		99	70 - 130
Endosulfan II (Beta)	<0.097		1.92	1.90		ug/L		99	70 - 130
Endosulfan sulfate	<0.097		1.92	1.99		ug/L		103	70 - 130
Endrin	<0.0097		1.92	1.85		ug/L		96	70 - 130
Endrin aldehyde	<0.097		1.92	1.75		ug/L		91	60 - 130
EPTC	<0.097		1.92	2.01		ug/L		104	70 - 130

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: 380-122999-N-1-A MS
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.097		1.92	2.02		ug/L		105	70 - 130
Fluorene	<0.048		1.92	2.04		ug/L		106	70 - 130
gamma-Chlordane	<0.048		1.92	1.98		ug/L		103	70 - 130
Heptachlor	<0.0097		1.92	1.91		ug/L		99	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.92	1.95		ug/L		101	70 - 130
Hexachlorobenzene	<0.048		1.92	1.88		ug/L		98	70 - 130
Hexachlorocyclopentadiene	<0.048		1.92	1.89		ug/L		98	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.92	1.90		ug/L		99	70 - 130
Isophorone	<0.097		1.92	1.96		ug/L		102	70 - 130
Lindane	<0.0097		1.92	1.81		ug/L		94	70 - 130
Malathion	<0.097		1.92	2.06		ug/L		107	70 - 130
Methoxychlor	<0.048		1.92	1.90		ug/L		99	70 - 130
Metolachlor	<0.048		1.92	2.05		ug/L		107	70 - 130
Molinate	<0.097		1.92	2.06		ug/L		107	70 - 130
Naphthalene	<0.097		1.92	1.92		ug/L		100	70 - 130
Parathion	<0.097		1.92	1.95		ug/L		101	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.92	1.85		ug/L		96	70 - 130
Phenanthrene	<0.039		1.92	1.85		ug/L		96	70 - 130
Propachlor	<0.048		1.92	2.04		ug/L		106	70 - 130
Pyrene	<0.048		1.92	1.97		ug/L		102	70 - 130
Simazine	<0.048		1.92	2.09		ug/L		109	70 - 130
Terbacil	<0.097		1.92	1.99		ug/L		103	70 - 130
Terbutylazine	<0.097		1.92	2.12		ug/L		110	70 - 130
Thiobencarb	<0.097		1.92	2.05		ug/L		107	70 - 130
trans-Nonachlor	<0.048		1.92	1.93		ug/L		100	70 - 130
Trifluralin	<0.097		1.92	1.82		ug/L		94	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	100		70 - 130

Lab Sample ID: 380-123012-N-1-B DU
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.096		<0.097		ug/L		NC	20
2,4'-DDD	<0.096		<0.097		ug/L		NC	20
2,4'-DDE	<0.096		<0.097		ug/L		NC	20
2,4'-DDT	<0.096		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.096		<0.097		ug/L		NC	20
4,4'-DDD	<0.096		<0.097		ug/L		NC	20
4,4'-DDE	<0.096		<0.097		ug/L		NC	20
4,4'-DDT	<0.096		<0.097		ug/L		NC	20
Acenaphthene	<0.096		<0.097		ug/L		NC	20

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: 380-123012-N-1-B DU
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Acenaphthylene	<0.096		<0.097		ug/L		NC	20
Acetochlor	<0.096		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.096		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.096		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.096		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.096		<0.097		ug/L		NC	20
Chloroneb	<0.096		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.096		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.096		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0096		<0.0097		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.96		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.096		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.096		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.096		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.096		<0.097		ug/L		NC	20
Endrin	<0.0096		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.096		<0.097		ug/L		NC	20
EPTC	<0.096		<0.097		ug/L		NC	20
Fluoranthene	<0.096		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0096		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0096		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.096		<0.097		ug/L		NC	20
Lindane	<0.0096		<0.0097		ug/L		NC	20
Malathion	<0.096		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

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

Lab Sample ID: 380-123012-N-1-B DU
Matrix: Water
Analysis Batch: 120598

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 120288

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.096		<0.097		ug/L		NC	20
Naphthalene	<0.096		<0.097		ug/L		NC	20
Parathion	<0.096		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.096		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.096		<0.097		ug/L		NC	20
Terbutylazine	<0.096		<0.097		ug/L		NC	20
Thiobencarb	<0.096		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.096		<0.097		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	96		70 - 130

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-506497/1-A
Matrix: Water
Analysis Batch: 510403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506497

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	11/22/24 13:13	12/05/24 20:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	67		33 - 139	11/22/24 13:13	12/05/24 20:13	1
2-Fluorobiphenyl (Surr)	59		33 - 126	11/22/24 13:13	12/05/24 20:13	1
2-Fluorophenol (Surr)	42		12 - 120	11/22/24 13:13	12/05/24 20:13	1
Nitrobenzene-d5 (Surr)	64		36 - 120	11/22/24 13:13	12/05/24 20:13	1
Phenol-d6 (Surr)	24		10 - 120	11/22/24 13:13	12/05/24 20:13	1
p-Terphenyl-d14 (Surr)	79		47 - 131	11/22/24 13:13	12/05/24 20:13	1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-506497/1-A
Matrix: Water
Analysis Batch: 507989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506497

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
2-Methylnaphthalene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Acenaphthene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: MB 570-506497/1-A
Matrix: Water
Analysis Batch: 507989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506497

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Anthracene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Benzo[a]anthracene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Benzo[a]pyrene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Chrysene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Fluoranthene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Fluorene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Naphthalene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Phenanthrene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1
Pyrene	<0.20		0.20	ug/L		11/22/24 13:13	11/27/24 03:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	70		28 - 127	11/22/24 13:13	11/27/24 03:09	1
2-Fluorobiphenyl (Surr)	66		31 - 120	11/22/24 13:13	11/27/24 03:09	1
2-Fluorophenol (Surr)	49		17 - 120	11/22/24 13:13	11/27/24 03:09	1
Nitrobenzene-d5 (Surr)	75		27 - 120	11/22/24 13:13	11/27/24 03:09	1
Phenol-d6 (Surr)	27		10 - 120	11/22/24 13:13	11/27/24 03:09	1
p-Terphenyl-d14 (Surr)	79		45 - 120	11/22/24 13:13	11/27/24 03:09	1

Lab Sample ID: LCS 570-506497/2-A
Matrix: Water
Analysis Batch: 507989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	20.0	15.3		ug/L		77	47 - 120
2-Methylnaphthalene	20.0	17.5		ug/L		87	43 - 120
Acenaphthene	20.0	16.7		ug/L		83	60 - 132
Acenaphthylene	20.0	16.4		ug/L		82	54 - 126
Anthracene	20.0	17.5		ug/L		88	43 - 120
Benzo[a]anthracene	20.0	17.2		ug/L		86	42 - 133
Benzo[a]pyrene	20.0	19.3		ug/L		96	32 - 148
Benzo[b]fluoranthene	20.0	18.7		ug/L		94	42 - 140
Benzo[g,h,i]perylene	20.0	16.0		ug/L		80	1 - 195
Benzo[k]fluoranthene	20.0	19.2		ug/L		96	25 - 146
Chrysene	20.0	16.1		ug/L		81	44 - 140
Dibenz(a,h)anthracene	20.0	17.1		ug/L		85	1 - 200
Fluoranthene	20.0	18.8		ug/L		94	43 - 121
Fluorene	20.0	16.8		ug/L		84	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.2		ug/L		86	1 - 151
Naphthalene	20.0	14.9		ug/L		74	36 - 120
Phenanthrene	20.0	16.3		ug/L		81	65 - 120
Pyrene	20.0	14.8		ug/L		74	70 - 120

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 570-506497/2-A
Matrix: Water
Analysis Batch: 507989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506497

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	81		28 - 127
2-Fluorobiphenyl (Surr)	80		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	79		45 - 120

Lab Sample ID: LCSD 570-506497/3-A
Matrix: Water
Analysis Batch: 507989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 506497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
1-Methylnaphthalene	20.0	13.8		ug/L		69	47 - 120	11	20	
2-Methylnaphthalene	20.0	15.8		ug/L		79	43 - 120	10	20	
Acenaphthene	20.0	15.1		ug/L		75	60 - 132	10	29	
Acenaphthylene	20.0	14.7		ug/L		73	54 - 126	11	45	
Anthracene	20.0	16.6		ug/L		83	43 - 120	5	40	
Benzo[a]anthracene	20.0	16.9		ug/L		84	42 - 133	2	32	
Benzo[a]pyrene	20.0	18.4		ug/L		92	32 - 148	5	43	
Benzo[b]fluoranthene	20.0	18.2		ug/L		91	42 - 140	3	43	
Benzo[g,h,i]perylene	20.0	15.3		ug/L		76	1 - 195	5	61	
Benzo[k]fluoranthene	20.0	18.5		ug/L		92	25 - 146	4	38	
Chrysene	20.0	15.9		ug/L		79	44 - 140	2	53	
Dibenz(a,h)anthracene	20.0	16.2		ug/L		81	1 - 200	5	75	
Fluoranthene	20.0	18.2		ug/L		91	43 - 121	4	40	
Fluorene	20.0	16.2		ug/L		81	70 - 120	4	23	
Indeno[1,2,3-cd]pyrene	20.0	17.0		ug/L		85	1 - 151	1	60	
Naphthalene	20.0	12.8		ug/L		64	36 - 120	15	39	
Phenanthrene	20.0	15.6		ug/L		78	65 - 120	4	24	
Pyrene	20.0	14.8		ug/L		74	70 - 120	0	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	76		28 - 127
2-Fluorobiphenyl (Surr)	70		31 - 120
2-Fluorophenol (Surr)	48		17 - 120
Nitrobenzene-d5 (Surr)	64		27 - 120
Phenol-d6 (Surr)	30		10 - 120
p-Terphenyl-d14 (Surr)	74		45 - 120

Lab Sample ID: 380-123126-3 MS
Matrix: Drinking Water
Analysis Batch: 507989

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 506497

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
1-Methylnaphthalene	<0.19		19.2	14.3		ug/L		74	36 - 120	
2-Methylnaphthalene	<0.19		19.2	16.4		ug/L		85	32 - 124	
Acenaphthene	<0.19		19.2	15.2		ug/L		79	47 - 145	
Acenaphthylene	<0.19		19.2	14.7		ug/L		77	33 - 145	

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QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: 380-123126-3 MSD
Matrix: Drinking Water
Analysis Batch: 507989

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 506497

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	79		28 - 127
2-Fluorobiphenyl (Surr)	79		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	32		10 - 120
p-Terphenyl-d14 (Surr)	73		45 - 120

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-508548/6
Matrix: Water
Analysis Batch: 508548

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			11/29/24 11:53	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	85		38 - 134		11/29/24 11:53	1

Lab Sample ID: LCS 570-508548/4
Matrix: Water
Analysis Batch: 508548

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	332		ug/L		83	78 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	93		38 - 134

Lab Sample ID: LCSD 570-508548/5
Matrix: Water
Analysis Batch: 508548

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	330		ug/L		82	78 - 120	1	10

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	93		38 - 134

Lab Sample ID: MRL 570-508548/3
Matrix: Water
Analysis Batch: 508548

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	12.2		ug/L		122	50 - 150

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MRL 570-508548/3
Matrix: Water
Analysis Batch: 508548

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

Surrogate	MRL %Recovery	MRL Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		38 - 134

Lab Sample ID: 380-123126-3 MS
Matrix: Drinking Water
Analysis Batch: 508548

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	374		ug/L		93	68 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		38 - 134

Lab Sample ID: 380-123126-3 MSD
Matrix: Drinking Water
Analysis Batch: 508548

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	355		ug/L		89	68 - 122	5	18

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		38 - 134

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Lab Sample ID: MB 570-506858/1-A
Matrix: Water
Analysis Batch: 508451

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506858

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		11/23/24 11:38	11/27/24 21:26	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		11/23/24 11:38	11/27/24 21:26	1
C8-C18	<25		25	ug/L		11/23/24 11:38	11/27/24 21:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	87		60 - 130	11/23/24 11:38	11/27/24 21:26	1

Lab Sample ID: LCS 570-506858/2-A
Matrix: Water
Analysis Batch: 508451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1340		ug/L		84	56 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	90		60 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-123126-1
SDG: Weekly

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)

Lab Sample ID: LCSD 570-506858/3-A
Matrix: Water
Analysis Batch: 508451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 506858

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1290		ug/L		81	56 - 127	3	23
Surrogate	%Recovery	MSD Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	87		60 - 130						

Lab Sample ID: MRL 570-506858/4-A
Matrix: Water
Analysis Batch: 508451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506858

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	0.0200	0.0201	J	mg/L		100	50 - 150		
Surrogate	%Recovery	MSD Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	84		60 - 130						

Lab Sample ID: 380-123126-3 MS
Matrix: Drinking Water
Analysis Batch: 508451

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 506858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1630	1400		ug/L		86	70 - 130		
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	88		60 - 130								

Lab Sample ID: 380-123126-3 MSD
Matrix: Drinking Water
Analysis Batch: 508451

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 506858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1650	1390		ug/L		84	70 - 130	1	20
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	89		60 - 130								

QC Association Summary

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

Job ID: 380-123126-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 120288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	525.2	
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	525.2	
MB 380-120288/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-120288/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-120288/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-120288/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-122999-N-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-123012-N-1-B DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 120598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	525.2	120288
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	525.2	120288
MB 380-120288/21-A	Method Blank	Total/NA	Water	525.2	120288
LCS 380-120288/23-A	Lab Control Sample	Total/NA	Water	525.2	120288
LCSD 380-120288/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	120288
MRL 380-120288/22-A	Lab Control Sample	Total/NA	Water	525.2	120288
380-122999-N-1-A MS	Matrix Spike	Total/NA	Water	525.2	120288
380-123012-N-1-B DU	Duplicate	Total/NA	Water	525.2	120288

Prep Batch: 506497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	625.1	
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	625.1	
MB 570-506497/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-506497/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-506497/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1	
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1	

Analysis Batch: 507989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	625.1 SIM	506497
MB 570-506497/1-A	Method Blank	Total/NA	Water	625.1 SIM	506497
LCS 570-506497/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	506497
LCSD 570-506497/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	506497
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1 SIM	506497
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1 SIM	506497

Analysis Batch: 509860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	506497

Analysis Batch: 510403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	625.1	506497
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	625.1	506497
MB 570-506497/1-A	Method Blank	Total/NA	Water	625.1	506497

QC Association Summary

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

Job ID: 380-123126-1
 SDG: Weekly

GC VOA

Analysis Batch: 508548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-123126-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	
380-123126-4	TB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	Total/NA	Water	8015B GRO LL	
MB 570-508548/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-508548/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-508548/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-508548/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 506858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	3510C	
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	3510C	
MB 570-506858/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-506858/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-506858/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-506858/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	3510C	
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	3510C	

Analysis Batch: 508451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-123126-1	Ka'amilo Wells	Total/NA	Water	8015B	506858
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	8015B	506858
MB 570-506858/1-A	Method Blank	Total/NA	Water	8015B	506858
LCS 570-506858/2-A	Lab Control Sample	Total/NA	Water	8015B	506858
LCSD 570-506858/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	506858
MRL 570-506858/4-A	Lab Control Sample	Total/NA	Water	8015B	506858
380-123126-3 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B	506858
380-123126-3 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B	506858

Lab Chronicle

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

Job ID: 380-123126-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-123126-1

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			120288	IQ42	EA POM	11/22/24 14:40
Total/NA	Analysis	525.2		1	120598	Q8LA	EA POM	11/25/24 14:47
Total/NA	Prep	625.1			506497	H1SH	EET CAL 4	11/22/24 13:13
Total/NA	Analysis	625.1		1	510403	CG	EET CAL 4	12/05/24 20:57
Total/NA	Prep	625.1			506497	H1SH	EET CAL 4	11/22/24 13:13
Total/NA	Analysis	625.1 SIM		1	509860	PQS1	EET CAL 4	12/04/24 17:32
Total/NA	Analysis	8015B GRO LL		1	508548	A9VE	EET CAL 4	11/29/24 17:53
Total/NA	Prep	3510C			506858	H6FE	EET CAL 4	11/23/24 11:38
Total/NA	Analysis	8015B		1	508451	E5RH	EET CAL 4	11/27/24 23:36

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-123126-2

Date Collected: 11/18/24 11:13

Matrix: Water

Date Received: 11/20/24 09:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	508548	A9VE	EET CAL 4	11/29/24 15:03

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-123126-3

Date Collected: 11/18/24 09:48

Matrix: Drinking Water

Date Received: 11/20/24 09:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			120288	IQ42	EA POM	11/22/24 14:40
Total/NA	Analysis	525.2		1	120598	Q8LA	EA POM	11/25/24 15:07
Total/NA	Prep	625.1			506497	H1SH	EET CAL 4	11/22/24 13:13
Total/NA	Analysis	625.1		1	510403	CG	EET CAL 4	12/05/24 21:20
Total/NA	Prep	625.1			506497	H1SH	EET CAL 4	11/22/24 13:13
Total/NA	Analysis	625.1 SIM		1	507989	AX7Z	EET CAL 4	11/27/24 05:01
Total/NA	Analysis	8015B GRO LL		1	508548	A9VE	EET CAL 4	11/29/24 14:11
Total/NA	Prep	3510C			506858	H6FE	EET CAL 4	11/23/24 11:38
Total/NA	Analysis	8015B		1	508451	E5RH	EET CAL 4	11/27/24 23:57

Client Sample ID: TB: HALAWA WELLS UNITS 1&2 (331-206-TP065)

Lab Sample ID: 380-123126-4

Date Collected: 11/18/24 09:48

Matrix: Water

Date Received: 11/20/24 09:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	508548	A9VE	EET CAL 4	11/29/24 14:37

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100
EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

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

Job ID: 380-123126-1
 SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

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	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
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	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
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	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Water	1 Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4'-DDT
525.2	525.2	Water	Acetochlor

Accreditation/Certification Summary

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

Job ID: 380-123126-1
 SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

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

Authority	Program	Identification Number	Expiration Date
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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	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
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Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-25

Method Summary

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

Job ID: 380-123126-1
SDG: Weekly

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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

Laboratory References:

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

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

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

Job ID: 380-123126-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-123126-1	Ka'amilo Wells	Water	11/18/24 11:13	11/20/24 09:31	
380-123126-2	TB: Ka'amilo Wells	Water	11/18/24 11:13	11/20/24 09:31	
380-123126-3	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	11/18/24 09:48	11/20/24 09:31	HI0000331
380-123126-4	TB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	Water	11/18/24 09:48	11/20/24 09:31	

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- 16

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-123126-1

SDG Number: Weekly

Login Number: 123126

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is 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.	False	Refer to Job Narrative for details.
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	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-123126-1

SDG Number: Weekly

Login Number: 123126

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 11/21/24 05:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

