

ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-137743-1

Eurofins Eaton Analytical Pomona

Job Notes

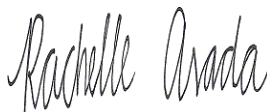
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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval 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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Definitions/Glossary

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

Job ID: 380-137743-1
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.

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: 380-137743-1

Job ID: 380-137743-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-137743-1

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 2/26/2025 10:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 0.8°C.

GC/MS Semi VOA

Method 625.1_SIM: The Method Blank (MB) prepared with batch 539018 was damaged. A new MB was prepared, but was outside the 24-hour batch time. All samples in the batch were non-detect for all target analytes and therefore, the samples were not re-extracted. Ka'amilo Wells (380-137743-1), (MB 570-539018/1-A), (380-137752-C-1-A), (380-137752-A-1-B MS) and (380-137752-A-1-C MSD)

Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-138422 and analytical batch 380-138710 was below control limits for Anthracene. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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.

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.030		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-137743-2

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: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2,4'-DDD	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2,4'-DDE	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2,4'-DDT	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
2-Methylnaphthalene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
4,4'-DDD	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
4,4'-DDE	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
4,4'-DDT	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Acenaphthene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Acenaphthylene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Acetochlor	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Alachlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
alpha-BHC	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
alpha-Chlordane	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Anthracene	<0.019	F1	0.019	ug/L		02/27/25 10:34	02/28/25 14:57	1
Atrazine	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Benz(a)anthracene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Benzo[a]pyrene	<0.019		0.019	ug/L		02/27/25 10:34	02/28/25 14:57	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		02/27/25 10:34	02/28/25 14:57	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		02/27/25 10:34	02/28/25 14:57	1
beta-BHC	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		02/27/25 10:34	02/28/25 14:57	1
Bromacil	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Butachlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Butylbenzylphthalate	<0.48		0.48	ug/L		02/27/25 10:34	02/28/25 14:57	1
Chlorobenzilate	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Chloroneb	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Chlorpyrifos	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Chrysene	<0.019		0.019	ug/L		02/27/25 10:34	02/28/25 14:57	1
delta-BHC	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		02/27/25 10:34	02/28/25 14:57	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Dieldrin	0.030		0.0097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Diethylphthalate	<0.48		0.48	ug/L		02/27/25 10:34	02/28/25 14:57	1
Dimethylphthalate	<0.48		0.48	ug/L		02/27/25 10:34	02/28/25 14:57	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		02/27/25 10:34	02/28/25 14:57	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Endosulfan sulfate	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Endrin	<0.0097		0.0097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Endrin aldehyde	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
EPTC	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Fluoranthene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
gamma-Chlordane	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Heptachlor	<0.0097		0.0097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Hexachlorobenzene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Isophorone	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Lindane	<0.0097		0.0097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Malathion	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Methoxychlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Metolachlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Molinate	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Naphthalene	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Parathion	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Phenanthrene	<0.039		0.039	ug/L		02/27/25 10:34	02/28/25 14:57	1
Propachlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Pyrene	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Simazine	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Terbacil	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Terbutylazine	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Thiobencarb	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		02/27/25 10:34	02/28/25 14:57	1
trans-Nonachlor	<0.048		0.048	ug/L		02/27/25 10:34	02/28/25 14:57	1
Trifluralin	<0.097		0.097	ug/L		02/27/25 10:34	02/28/25 14:57	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	02/27/25 10:34	02/28/25 14:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	02/27/25 10:34	02/28/25 14:57	1
Perylene-d12	94		70 - 130	02/27/25 10:34	02/28/25 14:57	1
Triphenylphosphate	97		70 - 130	02/27/25 10:34	02/28/25 14:57	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		02/28/25 04:41	03/03/25 23:34	1
2-Methylnaphthalene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Acenaphthene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Acenaphthylene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Anthracene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Benzo[a]anthracene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Benzo[a]pyrene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Chrysene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Fluoranthene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 04:41	03/03/25 23:34	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Naphthalene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Phenanthrene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1
Pyrene	<0.19		0.19	ug/L		02/28/25 04:41	03/03/25 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		28 - 127	02/28/25 04:41	03/03/25 23:34	1
2-Fluorobiphenyl (Surr)	61		31 - 120	02/28/25 04:41	03/03/25 23:34	1
2-Fluorophenol (Surr)	39		17 - 120	02/28/25 04:41	03/03/25 23:34	1
Nitrobenzene-d5 (Surr)	64		27 - 120	02/28/25 04:41	03/03/25 23:34	1
Phenol-d6 (Surr)	25		10 - 120	02/28/25 04:41	03/03/25 23:34	1
p-Terphenyl-d14 (Surr)	83		45 - 120	02/28/25 04:41	03/03/25 23:34	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
2-Pentenal, (E)-	33	T J N	ug/L		2.37	1576-87-0	02/28/25 04:41	03/11/25 21:43	1
2,3,3-Trimethyl-1-hexene	14	T J N	ug/L		2.47	1000113-52-1	02/28/25 04:41	03/11/25 21:43	1
Cyclohexane, 1-methyl-2-propyl-	19	T J N	ug/L		2.59	4291-79-6	02/28/25 04:41	03/11/25 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		33 - 139	02/28/25 04:41	03/11/25 21:43	1
2-Fluorobiphenyl (Surr)	77		33 - 126	02/28/25 04:41	03/11/25 21:43	1
2-Fluorophenol (Surr)	47		12 - 120	02/28/25 04:41	03/11/25 21:43	1
Nitrobenzene-d5 (Surr)	73		36 - 120	02/28/25 04:41	03/11/25 21:43	1
Phenol-d6 (Surr)	28		10 - 120	02/28/25 04:41	03/11/25 21:43	1
p-Terphenyl-d14 (Surr)	92		47 - 131	02/28/25 04:41	03/11/25 21:43	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			03/05/25 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		38 - 134		03/05/25 16:06	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		02/28/25 12:00	03/10/25 19:26	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		02/28/25 12:00	03/10/25 19:26	1
C8-C18	<26		26	ug/L		02/28/25 12:00	03/10/25 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 130	02/28/25 12:00	03/10/25 19:26	1

Client Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: TB: Ka'amilo Wells
Date Collected: 02/24/25 11:58
Date Received: 02/26/25 10:29

Lab Sample ID: 380-137743-2
Matrix: Water

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			03/05/25 20:54	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	79		38 - 134				03/05/25 20:54	1	

Action Limit Summary

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

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	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L	1	0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50	0.048	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	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: 380-137743-1
SDG: Weekly

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)
380-137743-1	Ka'amilo Wells	98	94	97
380-137743-1 MS	Ka'amilo Wells	98	96	99
380-137756-B-1-A DU	Duplicate	97	90	95
LCS 380-138422/23-A	Lab Control Sample	97	99	100
LCSD 380-138422/24-A	Lab Control Sample Dup	96	98	101
MB 380-138422/21-A	Method Blank	97	97	97
MRL 380-138422/22-A	Lab Control Sample	97	98	96

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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)
380-137743-1	Ka'amilo Wells	92	77	47	73	28	92

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)
380-137743-1	Ka'amilo Wells	66	61	39	64	25	83
380-137752-A-1-B MS	Matrix Spike	77	75	51	69	34	87
380-137752-A-1-C MSD	Matrix Spike Duplicate	77	77	51	72	34	87
LCS 570-539018/2-A	Lab Control Sample	76	74	50	68	35	88
LCSD 570-539018/3-A	Lab Control Sample Dup	75	74	56	69	37	85
MB 570-539018/1-A	Method Blank	72	73	41	77	27	89

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)

Surrogate Summary

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

Job ID: 380-137743-1
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)
380-137626-B-1 MS	Matrix Spike	98
380-137626-B-1 MSD	Matrix Spike Duplicate	98
380-137743-1	Ka'amilo Wells	80
380-137743-2	TB: Ka'amilo Wells	79
380-137752-C-1 MS	Matrix Spike	98
380-137752-C-1 MSD	Matrix Spike Duplicate	98
LCS 570-541268/4	Lab Control Sample	94
LCSD 570-541268/7	Lab Control Sample Dup	97
MB 570-541268/6	Method Blank	81
MRL 570-541268/3	Lab Control Sample	79

Surrogate Legend

BFB = 4-Bromofluorobenzene (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)
380-137743-1	Ka'amilo Wells	111
380-137752-B-1-A MS	Matrix Spike	107
380-137752-B-1-B MSD	Matrix Spike Duplicate	110
LCS 570-539581/2-A	Lab Control Sample	121
LCSD 570-539581/3-A	Lab Control Sample Dup	104
MB 570-539581/1-A	Method Blank	104
MRL 570-539581/4-A	Lab Control Sample	101

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MB 380-138422/21-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 138422

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2,4'-DDD	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2,4'-DDE	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2,4'-DDT	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
2-Methylnaphthalene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
4,4'-DDD	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
4,4'-DDE	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
4,4'-DDT	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Acenaphthene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Acenaphthylene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Acetochlor	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Alachlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
alpha-BHC	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
alpha-Chlordane	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Anthracene	<0.020		0.020	ug/L		02/27/25 10:34	02/28/25 14:36	1
Atrazine	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Benz(a)anthracene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Benzo[a]pyrene	<0.020		0.020	ug/L		02/27/25 10:34	02/28/25 14:36	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		02/27/25 10:34	02/28/25 14:36	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		02/27/25 10:34	02/28/25 14:36	1
beta-BHC	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		02/27/25 10:34	02/28/25 14:36	1
Bromacil	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Butachlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Butylbenzylphthalate	<0.50		0.50	ug/L		02/27/25 10:34	02/28/25 14:36	1
Chlorobenzilate	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Chloroneb	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Chlorpyrifos	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Chrysene	<0.020		0.020	ug/L		02/27/25 10:34	02/28/25 14:36	1
delta-BHC	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		02/27/25 10:34	02/28/25 14:36	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Dieldrin	<0.0099		0.0099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Diethylphthalate	<0.50		0.50	ug/L		02/27/25 10:34	02/28/25 14:36	1
Dimethylphthalate	<0.50		0.50	ug/L		02/27/25 10:34	02/28/25 14:36	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		02/27/25 10:34	02/28/25 14:36	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Endosulfan sulfate	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Endrin	<0.0099		0.0099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Endrin aldehyde	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
EPTC	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1

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QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MB 380-138422/21-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 138422

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Fluorene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
gamma-Chlordane	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Heptachlor	<0.0099		0.0099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Hexachlorobenzene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Isophorone	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Lindane	<0.0099		0.0099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Malathion	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Methoxychlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Metolachlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Molinate	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Naphthalene	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Parathion	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Phenanthrene	<0.040		0.040	ug/L		02/27/25 10:34	02/28/25 14:36	1
Propachlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Pyrene	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Simazine	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Terbacil	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Terbutylazine	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Thiobencarb	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		02/27/25 10:34	02/28/25 14:36	1
trans-Nonachlor	<0.050		0.050	ug/L		02/27/25 10:34	02/28/25 14:36	1
Trifluralin	<0.099		0.099	ug/L		02/27/25 10:34	02/28/25 14:36	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
9-Octadecenamide, (Z)-	2.37	T J N	ug/L		7.88	301-02-0	02/27/25 10:34	02/28/25 14:36	1
13-Docosenamide, (Z)-	3.12	T J N	ug/L		10.41	112-84-5	02/27/25 10:34	02/28/25 14:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	02/27/25 10:34	02/28/25 14:36	1
Perylene-d12	97		70 - 130	02/27/25 10:34	02/28/25 14:36	1
Triphenylphosphate	97		70 - 130	02/27/25 10:34	02/28/25 14:36	1

Lab Sample ID: LCS 380-138422/23-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.99	1.85		ug/L		93	70 - 130
2,4'-DDD	1.99	2.09		ug/L		105	70 - 130
2,4'-DDE	1.99	2.00		ug/L		100	70 - 130
2,4'-DDT	1.99	2.16		ug/L		108	70 - 130
2,4-Dinitrotoluene	1.99	2.02		ug/L		102	70 - 130
2,6-Dinitrotoluene	1.99	2.12		ug/L		106	70 - 130

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QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCS 380-138422/23-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	1.99	1.87		ug/L		94	70 - 130
4,4'-DDD	1.99	2.11		ug/L		106	70 - 130
4,4'-DDE	1.99	2.02		ug/L		101	70 - 130
4,4'-DDT	1.99	2.06		ug/L		103	70 - 130
Acenaphthene	1.99	2.01		ug/L		101	70 - 130
Acenaphthylene	1.99	1.97		ug/L		99	70 - 130
Acetochlor	1.99	2.00		ug/L		100	70 - 130
Alachlor	1.99	2.03		ug/L		102	70 - 130
alpha-BHC	1.99	1.95		ug/L		98	70 - 130
alpha-Chlordane	1.99	1.92		ug/L		96	70 - 130
Anthracene	1.99	1.81		ug/L		91	70 - 130
Atrazine	1.99	2.17		ug/L		109	70 - 130
Benz(a)anthracene	1.99	2.07		ug/L		104	70 - 130
Benzo[a]pyrene	1.99	2.07		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.99	2.19		ug/L		110	70 - 130
Benzo[g,h,i]perylene	1.99	2.13		ug/L		107	70 - 130
Benzo[k]fluoranthene	1.99	2.14		ug/L		108	70 - 130
beta-BHC	1.99	2.04		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.15		ug/L		108	70 - 130
Bromacil	1.99	2.11		ug/L		106	70 - 130
Butachlor	1.99	2.24		ug/L		112	70 - 130
Butylbenzylphthalate	1.99	2.11		ug/L		106	70 - 130
Chlorobenzilate	1.99	1.80		ug/L		90	70 - 130
Chloroneb	1.99	1.91		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.14		ug/L		108	70 - 130
Chlorpyrifos	1.99	2.12		ug/L		107	70 - 130
Chrysene	1.99	2.03		ug/L		102	70 - 130
delta-BHC	1.99	1.96		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.16		ug/L		109	70 - 130
Dibenz(a,h)anthracene	1.99	2.05		ug/L		103	70 - 130
Diclorvos (DDVP)	1.99	2.07		ug/L		104	70 - 130
Dieldrin	1.99	1.92		ug/L		97	70 - 130
Diethylphthalate	1.99	2.06		ug/L		104	70 - 130
Dimethylphthalate	1.99	2.04		ug/L		102	70 - 130
Di-n-butyl phthalate	3.98	4.22		ug/L		106	70 - 130
Di-n-octyl phthalate	1.99	2.00		ug/L		101	70 - 130
Endosulfan I (Alpha)	1.99	1.96		ug/L		99	70 - 130
Endosulfan II (Beta)	1.99	2.05		ug/L		103	70 - 130
Endosulfan sulfate	1.99	2.06		ug/L		104	70 - 130
Endrin	1.99	2.10		ug/L		105	70 - 130
Endrin aldehyde	1.99	1.96		ug/L		98	60 - 130
EPTC	1.99	2.08		ug/L		104	70 - 130
Fluoranthene	1.99	2.13		ug/L		107	70 - 130
Fluorene	1.99	2.01		ug/L		101	70 - 130
gamma-Chlordane	1.99	1.93		ug/L		97	70 - 130
Heptachlor	1.99	2.18		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.97		ug/L		99	70 - 130
Hexachlorobenzene	1.99	1.84		ug/L		92	70 - 130
Hexachlorocyclopentadiene	1.99	1.88		ug/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCS 380-138422/23-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	1.99	2.05		ug/L		103	70 - 130
Isophorone	1.99	1.99		ug/L		100	70 - 130
Lindane	1.99	2.02		ug/L		102	70 - 130
Malathion	1.99	2.10		ug/L		106	70 - 130
Methoxychlor	1.99	2.08		ug/L		105	70 - 130
Metolachlor	1.99	2.16		ug/L		109	70 - 130
Molinate	1.99	2.12		ug/L		106	70 - 130
Naphthalene	1.99	2.01		ug/L		101	70 - 130
Parathion	1.99	2.22		ug/L		112	70 - 130
Pendimethalin (Penoxaline)	1.99	2.11		ug/L		106	70 - 130
Phenanthrene	1.99	2.05		ug/L		103	70 - 130
Propachlor	1.99	2.13		ug/L		107	70 - 130
Pyrene	1.99	2.15		ug/L		108	70 - 130
Simazine	1.99	2.18		ug/L		110	70 - 130
Terbacil	1.99	2.32		ug/L		116	70 - 130
Terbutylazine	1.99	2.16		ug/L		109	70 - 130
Thiobencarb	1.99	2.29		ug/L		115	70 - 130
trans-Nonachlor	1.99	1.92		ug/L		96	70 - 130
Trifluralin	1.99	1.85		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	100		70 - 130

Lab Sample ID: LCSD 380-138422/24-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.99	1.87		ug/L		94	70 - 130	1	20
2,4'-DDD	1.99	2.08		ug/L		105	70 - 130	0	20
2,4'-DDE	1.99	1.97		ug/L		99	70 - 130	1	20
2,4'-DDT	1.99	2.16		ug/L		109	70 - 130	0	20
2,4-Dinitrotoluene	1.99	2.08		ug/L		105	70 - 130	3	20
2,6-Dinitrotoluene	1.99	2.19		ug/L		110	70 - 130	3	20
2-Methylnaphthalene	1.99	1.88		ug/L		94	70 - 130	0	20
4,4'-DDD	1.99	2.12		ug/L		107	70 - 130	0	20
4,4'-DDE	1.99	2.01		ug/L		101	70 - 130	1	20
4,4'-DDT	1.99	2.06		ug/L		103	70 - 130	0	20
Acenaphthene	1.99	2.01		ug/L		101	70 - 130	0	20
Acenaphthylene	1.99	2.00		ug/L		100	70 - 130	1	20
Acetochlor	1.99	1.98		ug/L		99	70 - 130	1	20
Alachlor	1.99	2.02		ug/L		101	70 - 130	0	20
alpha-BHC	1.99	1.95		ug/L		98	70 - 130	0	20
alpha-Chlordane	1.99	1.89		ug/L		95	70 - 130	1	20
Anthracene	1.99	1.81		ug/L		91	70 - 130	0	20
Atrazine	1.99	2.21		ug/L		111	70 - 130	2	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-138422/24-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benz(a)anthracene	1.99	2.10		ug/L		105	70 - 130	1	20
Benzo[a]pyrene	1.99	2.09		ug/L		105	70 - 130	1	20
Benzo[b]fluoranthene	1.99	2.22		ug/L		112	70 - 130	1	20
Benzo[g,h,i]perylene	1.99	2.13		ug/L		107	70 - 130	0	20
Benzo[k]fluoranthene	1.99	2.15		ug/L		108	70 - 130	1	20
beta-BHC	1.99	2.03		ug/L		102	70 - 130	1	20
Bis(2-ethylhexyl) phthalate	1.99	2.12		ug/L		106	70 - 130	2	20
Bromacil	1.99	2.13		ug/L		107	70 - 130	1	20
Butachlor	1.99	2.26		ug/L		114	70 - 130	1	20
Butylbenzylphthalate	1.99	2.17		ug/L		109	70 - 130	2	20
Chlorobenzilate	1.99	1.84		ug/L		93	70 - 130	2	20
Chloroneb	1.99	1.91		ug/L		96	70 - 130	0	20
Chlorothalonil (Draconil, Bravo)	1.99	2.13		ug/L		107	70 - 130	1	20
Chlorpyrifos	1.99	2.08		ug/L		105	70 - 130	2	20
Chrysene	1.99	2.04		ug/L		103	70 - 130	1	20
delta-BHC	1.99	1.93		ug/L		97	70 - 130	2	20
Di(2-ethylhexyl)adipate	1.99	2.14		ug/L		108	70 - 130	1	20
Dibenz(a,h)anthracene	1.99	2.06		ug/L		104	70 - 130	1	20
Diclorvos (DDVP)	1.99	2.08		ug/L		105	70 - 130	0	20
Dieldrin	1.99	1.90		ug/L		95	70 - 130	1	20
Diethylphthalate	1.99	2.06		ug/L		104	70 - 130	0	20
Dimethylphthalate	1.99	2.02		ug/L		102	70 - 130	1	20
Di-n-butyl phthalate	3.98	4.18		ug/L		105	70 - 130	1	20
Di-n-octyl phthalate	1.99	1.99		ug/L		100	70 - 130	1	20
Endosulfan I (Alpha)	1.99	1.89		ug/L		95	70 - 130	4	20
Endosulfan II (Beta)	1.99	2.02		ug/L		102	70 - 130	2	20
Endosulfan sulfate	1.99	2.05		ug/L		103	70 - 130	0	20
Endrin	1.99	2.07		ug/L		104	70 - 130	1	20
Endrin aldehyde	1.99	1.94		ug/L		97	60 - 130	1	20
EPTC	1.99	2.08		ug/L		105	70 - 130	0	20
Fluoranthene	1.99	2.13		ug/L		107	70 - 130	0	20
Fluorene	1.99	2.02		ug/L		102	70 - 130	0	20
gamma-Chlordane	1.99	1.91		ug/L		96	70 - 130	1	20
Heptachlor	1.99	2.11		ug/L		106	70 - 130	3	20
Heptachlor epoxide (isomer B)	1.99	1.93		ug/L		97	70 - 130	2	20
Hexachlorobenzene	1.99	1.85		ug/L		93	70 - 130	1	20
Hexachlorocyclopentadiene	1.99	1.88		ug/L		95	70 - 130	0	20
Indeno[1,2,3-cd]pyrene	1.99	2.10		ug/L		105	70 - 130	2	20
Isophorone	1.99	1.98		ug/L		100	70 - 130	1	20
Lindane	1.99	1.96		ug/L		98	70 - 130	3	20
Malathion	1.99	2.08		ug/L		104	70 - 130	1	20
Methoxychlor	1.99	2.07		ug/L		104	70 - 130	0	20
Metolachlor	1.99	2.12		ug/L		106	70 - 130	2	20
Molinate	1.99	2.11		ug/L		106	70 - 130	0	20
Naphthalene	1.99	2.00		ug/L		101	70 - 130	1	20
Parathion	1.99	2.20		ug/L		111	70 - 130	1	20
Pendimethalin (Penoxaline)	1.99	2.10		ug/L		106	70 - 130	1	20
Phenanthrene	1.99	2.06		ug/L		104	70 - 130	0	20
Propachlor	1.99	2.11		ug/L		106	70 - 130	1	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-138422/24-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pyrene	1.99	2.16		ug/L		109	70 - 130	0	20
Simazine	1.99	2.23		ug/L		112	70 - 130	2	20
Terbacil	1.99	2.33		ug/L		117	70 - 130	1	20
Terbutylazine	1.99	2.16		ug/L		109	70 - 130	0	20
Thiobencarb	1.99	2.24		ug/L		113	70 - 130	2	20
trans-Nonachlor	1.99	1.88		ug/L		95	70 - 130	2	20
Trifluralin	1.99	1.85		ug/L		93	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	101		70 - 130

Lab Sample ID: MRL 380-138422/22-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0994	0.107		ug/L		108	50 - 150
2,4'-DDD	0.0994	0.0940	J	ug/L		95	50 - 150
2,4'-DDE	0.0994	0.101		ug/L		102	50 - 150
2,4'-DDT	0.0994	0.105		ug/L		105	50 - 150
2,4-Dinitrotoluene	0.0994	0.112		ug/L		113	50 - 150
2,6-Dinitrotoluene	0.0994	0.100		ug/L		101	50 - 150
2-Methylnaphthalene	0.0994	0.0996		ug/L		100	50 - 150
4,4'-DDD	0.0994	0.105		ug/L		106	50 - 150
4,4'-DDE	0.0994	0.102		ug/L		103	50 - 150
4,4'-DDT	0.0994	0.114		ug/L		115	50 - 150
Acenaphthene	0.0994	0.0900	J	ug/L		91	50 - 150
Acenaphthylene	0.0994	0.0947	J	ug/L		95	50 - 150
Acetochlor	0.0994	0.111		ug/L		112	50 - 150
Alachlor	0.0497	0.0514		ug/L		103	50 - 150
alpha-BHC	0.0994	0.109		ug/L		109	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		87	50 - 150
Anthracene	0.0199	0.0220		ug/L		111	50 - 150
Atrazine	0.0497	0.0503		ug/L		101	50 - 150
Benz(a)anthracene	0.0497	0.0558		ug/L		112	50 - 150
Benzo[a]pyrene	0.0199	0.0216		ug/L		109	50 - 150
Benzo[b]fluoranthene	0.0199	0.0209		ug/L		105	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0462	J	ug/L		93	50 - 150
Benzo[k]fluoranthene	0.0199	0.0212		ug/L		107	50 - 150
beta-BHC	0.0994	0.113		ug/L		114	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.630		ug/L		106	50 - 150
Bromacil	0.0994	0.108		ug/L		109	50 - 150
Butachlor	0.0497	0.0526		ug/L		106	50 - 150
Butylbenzylphthalate	0.497	0.550		ug/L		111	50 - 150
Chlorobenzilate	0.0994	0.0747	J	ug/L		75	50 - 150
Chloroneb	0.0994	0.113		ug/L		114	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MRL 380-138422/22-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorothalonil (Draconil, Bravo)	0.0994	0.0921	J	ug/L		93	50 - 150
Chlorpyrifos	0.0497	0.0547		ug/L		110	50 - 150
Chrysene	0.0199	0.0242		ug/L		122	50 - 150
delta-BHC	0.0994	0.115		ug/L		116	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.665		ug/L		111	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0479	J	ug/L		97	50 - 150
Diclorvos (DDVP)	0.0497	0.0587		ug/L		118	50 - 150
Dieldrin	0.00994	0.0137		ug/L		138	50 - 150
Diethylphthalate	0.497	0.526		ug/L		106	50 - 150
Dimethylphthalate	0.497	0.535		ug/L		108	50 - 150
Di-n-butyl phthalate	0.497	0.591	J	ug/L		119	49 - 243
Di-n-octyl phthalate	0.0994	0.0970	J	ug/L		98	50 - 150
Endosulfan I (Alpha)	0.0994	0.0957	J	ug/L		96	50 - 150
Endosulfan II (Beta)	0.0994	0.111		ug/L		112	50 - 150
Endosulfan sulfate	0.0994	0.106		ug/L		106	50 - 150
Endrin	0.00994	0.0103		ug/L		103	50 - 150
Endrin aldehyde	0.0994	0.0954	J	ug/L		96	50 - 150
EPTC	0.0994	0.0982	J	ug/L		99	50 - 150
Fluoranthene	0.0994	0.103		ug/L		103	50 - 150
Fluorene	0.0497	0.0525		ug/L		106	50 - 150
gamma-Chlordane	0.0248	0.0228	J	ug/L		92	50 - 150
Heptachlor	0.00994	0.0129		ug/L		130	50 - 150
Heptachlor epoxide (isomer B)	0.00994	0.0135		ug/L		136	50 - 150
Hexachlorobenzene	0.0497	0.0484	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0497	0.0437	J	ug/L		88	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0478	J	ug/L		96	50 - 150
Isophorone	0.0994	0.124		ug/L		125	50 - 150
Lindane	0.00994	0.0113		ug/L		113	50 - 150
Malathion	0.0994	0.106		ug/L		106	50 - 150
Methoxychlor	0.0497	0.0648		ug/L		130	50 - 150
Metolachlor	0.0497	0.0576		ug/L		116	50 - 150
Molinate	0.0994	0.112		ug/L		113	50 - 150
Naphthalene	0.0994	0.0918	J	ug/L		92	50 - 150
Parathion	0.0994	0.0960	J	ug/L		97	50 - 150
Pendimethalin (Penoxaline)	0.0994	0.102		ug/L		103	50 - 150
Phenanthrene	0.0397	0.0378	J	ug/L		95	50 - 150
Propachlor	0.0497	0.0544		ug/L		109	50 - 150
Pyrene	0.0497	0.0518		ug/L		104	50 - 150
Simazine	0.0497	0.0496	J	ug/L		100	50 - 150
Terbacil	0.0994	0.101		ug/L		102	50 - 150
Terbutylazine	0.0994	0.102		ug/L		102	50 - 150
Thiobencarb	0.0994	0.107		ug/L		108	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		89	50 - 150
Trifluralin	0.0994	0.0970	J	ug/L		98	50 - 150

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MRL 380-138422/22-A

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138422

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Triphenylphosphate	96		70 - 130

Lab Sample ID: 380-137743-1 MS

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Ka'amilo Wells

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.097		1.97	1.84		ug/L		94	70 - 130
2,4'-DDD	<0.097		1.97	2.04		ug/L		104	70 - 130
2,4'-DDE	<0.097		1.97	1.91		ug/L		97	70 - 130
2,4'-DDT	<0.097		1.97	2.04		ug/L		104	70 - 130
2,4-Dinitrotoluene	<0.097		1.97	2.08		ug/L		106	70 - 130
2,6-Dinitrotoluene	<0.097		1.97	2.16		ug/L		110	70 - 130
2-Methylnaphthalene	<0.097		1.97	1.87		ug/L		95	70 - 130
4,4'-DDD	<0.097		1.97	2.06		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.97	1.89		ug/L		96	70 - 130
4,4'-DDT	<0.097		1.97	1.94		ug/L		99	70 - 130
Acenaphthene	<0.097		1.97	1.99		ug/L		101	70 - 130
Acenaphthylene	<0.097		1.97	1.95		ug/L		99	70 - 130
Acetochlor	<0.097		1.97	1.96		ug/L		100	70 - 130
Alachlor	<0.048		1.97	1.99		ug/L		101	70 - 130
alpha-BHC	<0.097		1.97	1.89		ug/L		96	70 - 130
alpha-Chlordane	<0.048		1.97	1.86		ug/L		94	70 - 130
Anthracene	<0.019	F1	1.97	1.13	F1	ug/L		58	70 - 130
Atrazine	<0.048		1.97	2.13		ug/L		108	70 - 130
Benz(a)anthracene	<0.048		1.97	1.88		ug/L		96	70 - 130
Benzo[a]pyrene	<0.019		1.97	1.78		ug/L		91	70 - 130
Benzo[b]fluoranthene	<0.019		1.97	2.20		ug/L		112	70 - 130
Benzo[g,h,i]perylene	<0.048		1.97	2.04		ug/L		104	70 - 130
Benzo[k]fluoranthene	<0.019		1.97	2.09		ug/L		107	70 - 130
beta-BHC	<0.097		1.97	1.97		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.97	1.77		ug/L		90	70 - 130
Bromacil	<0.097		1.97	2.12		ug/L		108	70 - 130
Butachlor	<0.048		1.97	2.19		ug/L		112	70 - 130
Butylbenzylphthalate	<0.48		1.97	2.09		ug/L		106	70 - 130
Chlorobenzilate	<0.097		1.97	1.99		ug/L		101	70 - 130
Chloroneb	<0.097		1.97	1.87		ug/L		95	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.97	2.08		ug/L		106	70 - 130
Chlorpyrifos	<0.048		1.97	2.13		ug/L		108	70 - 130
Chrysene	<0.019		1.97	1.97		ug/L		100	70 - 130
delta-BHC	<0.097		1.97	1.89		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.97	1.87		ug/L		95	70 - 130
Dibenz(a,h)anthracene	<0.048		1.97	1.96		ug/L		100	70 - 130
Diclorvos (DDVP)	<0.048		1.97	2.04		ug/L		104	70 - 130
Dieldrin	0.030		1.97	1.89		ug/L		95	70 - 130
Diethylphthalate	<0.48		1.97	2.01		ug/L		102	70 - 130
Dimethylphthalate	<0.48		1.97	2.01		ug/L		102	70 - 130
Di-n-butyl phthalate	<0.97		3.93	4.07		ug/L		103	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: 380-137743-1 MS

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Ka'amilo Wells

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-octyl phthalate	<0.097		1.97	1.52		ug/L		77	70 - 130
Endosulfan I (Alpha)	<0.097		1.97	1.89		ug/L		96	70 - 130
Endosulfan II (Beta)	<0.097		1.97	1.97		ug/L		100	70 - 130
Endosulfan sulfate	<0.097		1.97	2.00		ug/L		102	70 - 130
Endrin	<0.0097		1.97	2.03		ug/L		103	70 - 130
Endrin aldehyde	<0.097		1.97	1.67		ug/L		85	60 - 130
EPTC	<0.097		1.97	2.03		ug/L		103	70 - 130
Fluoranthene	<0.097		1.97	2.11		ug/L		107	70 - 130
Fluorene	<0.048		1.97	2.00		ug/L		102	70 - 130
gamma-Chlordane	<0.048		1.97	1.89		ug/L		96	70 - 130
Heptachlor	<0.0097		1.97	2.11		ug/L		107	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.97	1.93		ug/L		98	70 - 130
Hexachlorobenzene	<0.048		1.97	1.82		ug/L		92	70 - 130
Hexachlorocyclopentadiene	<0.048		1.97	1.87		ug/L		95	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.97	2.04		ug/L		104	70 - 130
Isophorone	<0.097		1.97	1.95		ug/L		99	70 - 130
Lindane	<0.0097		1.97	1.93		ug/L		98	70 - 130
Malathion	<0.097		1.97	2.05		ug/L		104	70 - 130
Methoxychlor	<0.048		1.97	2.09		ug/L		106	70 - 130
Metolachlor	<0.048		1.97	2.10		ug/L		107	70 - 130
Molinate	<0.097		1.97	2.08		ug/L		106	70 - 130
Naphthalene	<0.097		1.97	2.02		ug/L		103	70 - 130
Parathion	<0.097		1.97	2.19		ug/L		111	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.97	2.10		ug/L		107	70 - 130
Phenanthrene	<0.039		1.97	2.03		ug/L		103	70 - 130
Propachlor	<0.048		1.97	2.08		ug/L		106	70 - 130
Pyrene	<0.048		1.97	2.11		ug/L		107	70 - 130
Simazine	<0.048		1.97	2.14		ug/L		109	70 - 130
Terbacil	<0.097		1.97	2.35		ug/L		120	70 - 130
Terbutylazine	<0.097		1.97	2.11		ug/L		107	70 - 130
Thiobencarb	<0.097		1.97	2.22		ug/L		113	70 - 130
trans-Nonachlor	<0.048		1.97	1.83		ug/L		93	70 - 130
Trifluralin	<0.097		1.97	1.81		ug/L		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	99		70 - 130

Lab Sample ID: 380-137756-B-1-A DU

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
2,4'-DDD	<0.098		<0.098		ug/L		NC	20
2,4'-DDE	<0.098		<0.098		ug/L		NC	20
2,4'-DDT	<0.098		<0.098		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: 380-137756-B-1-A DU

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
2,4-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
4,4'-DDD	<0.098		<0.098		ug/L		NC	20
4,4'-DDE	<0.098		<0.098		ug/L		NC	20
4,4'-DDT	<0.098		<0.098		ug/L		NC	20
Acenaphthene	<0.098		<0.098		ug/L		NC	20
Acenaphthylene	<0.098		<0.098		ug/L		NC	20
Acetochlor	<0.098		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.098		ug/L		NC	20
Chloroneb	<0.098		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0098		<0.0098		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.098		ug/L		NC	20
Endrin	<0.0098		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.098		<0.098		ug/L		NC	20
EPTC	<0.098		<0.098		ug/L		NC	20
Fluoranthene	<0.098		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0098		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0098		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: 380-137756-B-1-A DU

Matrix: Water

Analysis Batch: 138710

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 138422

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.098		<0.098		ug/L		NC	20
Lindane	<0.0098		<0.0098		ug/L		NC	20
Malathion	<0.098		<0.098		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.098		ug/L		NC	20
Naphthalene	<0.098		<0.098		ug/L		NC	20
Parathion	<0.098		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.098		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.098		<0.098		ug/L		NC	20
Terbutylazine	<0.098		<0.098		ug/L		NC	20
Thiobencarb	<0.098		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.098		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	95		70 - 130

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

Lab Sample ID: MB 570-539018/1-A

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539018

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
2-Methylnaphthalene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Acenaphthene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Acenaphthylene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Anthracene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Benzo[a]anthracene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Benzo[a]pyrene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Chrysene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Fluoranthene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Fluorene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MB 570-539018/1-A

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539018

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Naphthalene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Phenanthrene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1
Pyrene	<0.20		0.20	ug/L		03/01/25 10:00	03/03/25 15:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		28 - 127	03/01/25 10:00	03/03/25 15:45	1
2-Fluorobiphenyl (Surr)	73		31 - 120	03/01/25 10:00	03/03/25 15:45	1
2-Fluorophenol (Surr)	41		17 - 120	03/01/25 10:00	03/03/25 15:45	1
Nitrobenzene-d5 (Surr)	77		27 - 120	03/01/25 10:00	03/03/25 15:45	1
Phenol-d6 (Surr)	27		10 - 120	03/01/25 10:00	03/03/25 15:45	1
p-Terphenyl-d14 (Surr)	89		45 - 120	03/01/25 10:00	03/03/25 15:45	1

Lab Sample ID: LCS 570-539018/2-A

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539018

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.6		ug/L		68	47 - 120
2-Methylnaphthalene	20.0	15.4		ug/L		77	43 - 120
Acenaphthene	20.0	15.6		ug/L		78	60 - 132
Acenaphthylene	20.0	14.4		ug/L		72	54 - 126
Anthracene	20.0	16.1		ug/L		81	43 - 120
Benzo[a]anthracene	20.0	16.6		ug/L		83	42 - 133
Benzo[a]pyrene	20.0	16.6		ug/L		83	32 - 148
Benzo[b]fluoranthene	20.0	16.7		ug/L		84	42 - 140
Benzo[g,h,i]perylene	20.0	15.0		ug/L		75	1 - 195
Benzo[k]fluoranthene	20.0	16.4		ug/L		82	25 - 146
Chrysene	20.0	16.0		ug/L		80	44 - 140
Dibenz(a,h)anthracene	20.0	16.6		ug/L		83	1 - 200
Fluoranthene	20.0	16.9		ug/L		85	43 - 121
Fluorene	20.0	16.3		ug/L		82	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.0		ug/L		85	1 - 151
Naphthalene	20.0	13.1		ug/L		65	36 - 120
Phenanthrene	20.0	15.6		ug/L		78	65 - 120
Pyrene	20.0	16.7		ug/L		83	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	76		28 - 127
2-Fluorobiphenyl (Surr)	74		31 - 120
2-Fluorophenol (Surr)	50		17 - 120
Nitrobenzene-d5 (Surr)	68		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	88		45 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCSD 570-539018/3-A

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 539018

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.0		ug/L		70	47 - 120	3	20
2-Methylnaphthalene	20.0	15.7		ug/L		79	43 - 120	2	20
Acenaphthene	20.0	15.0		ug/L		75	60 - 132	4	29
Acenaphthylene	20.0	14.6		ug/L		73	54 - 126	1	45
Anthracene	20.0	16.2		ug/L		81	43 - 120	1	40
Benzo[a]anthracene	20.0	16.5		ug/L		82	42 - 133	1	32
Benzo[a]pyrene	20.0	16.4		ug/L		82	32 - 148	1	43
Benzo[b]fluoranthene	20.0	16.9		ug/L		84	42 - 140	1	43
Benzo[g,h,i]perylene	20.0	14.8		ug/L		74	1 - 195	1	61
Benzo[k]fluoranthene	20.0	16.2		ug/L		81	25 - 146	1	38
Chrysene	20.0	15.9		ug/L		79	44 - 140	1	53
Dibenz(a,h)anthracene	20.0	16.6		ug/L		83	1 - 200	0	75
Fluoranthene	20.0	16.7		ug/L		84	43 - 121	1	40
Fluorene	20.0	16.1		ug/L		81	70 - 120	1	23
Indeno[1,2,3-cd]pyrene	20.0	16.5		ug/L		83	1 - 151	3	60
Naphthalene	20.0	13.8		ug/L		69	36 - 120	6	39
Phenanthrene	20.0	15.8		ug/L		79	65 - 120	2	24
Pyrene	20.0	16.8		ug/L		84	70 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	75		28 - 127
2-Fluorobiphenyl (Surr)	74		31 - 120
2-Fluorophenol (Surr)	56		17 - 120
Nitrobenzene-d5 (Surr)	69		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	85		45 - 120

Lab Sample ID: 380-137752-A-1-B MS

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 539018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.3	14.0		ug/L		72	36 - 120
2-Methylnaphthalene	<0.19		19.3	15.8		ug/L		82	32 - 124
Acenaphthene	<0.19		19.3	15.1		ug/L		78	47 - 145
Acenaphthylene	<0.19		19.3	14.4		ug/L		75	33 - 145
Anthracene	<0.19		19.3	16.1		ug/L		83	27 - 133
Benzo[a]anthracene	<0.19		19.3	16.1		ug/L		83	33 - 143
Benzo[a]pyrene	<0.19		19.3	15.3		ug/L		79	17 - 163
Benzo[b]fluoranthene	<0.19		19.3	16.0		ug/L		83	24 - 159
Benzo[g,h,i]perylene	<0.19		19.3	14.3		ug/L		74	1 - 219
Benzo[k]fluoranthene	<0.19		19.3	15.2		ug/L		79	11 - 162
Chrysene	<0.19		19.3	15.6		ug/L		81	17 - 168
Dibenz(a,h)anthracene	<0.19		19.3	16.3		ug/L		84	1 - 227
Fluoranthene	<0.19		19.3	16.0		ug/L		83	26 - 137
Fluorene	<0.19		19.3	15.7		ug/L		81	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.3	16.4		ug/L		85	1 - 171
Naphthalene	<0.19		19.3	13.4		ug/L		70	21 - 133

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: 380-137752-A-1-B MS

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 539018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	<0.19		19.3	15.4		ug/L		80	54 - 120
Pyrene	<0.19		19.3	16.4		ug/L		85	52 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	77		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	51		17 - 120
Nitrobenzene-d5 (Surr)	69		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	87		45 - 120

Lab Sample ID: 380-137752-A-1-C MSD

Matrix: Water

Analysis Batch: 540452

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 539018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.19		19.2	14.6		ug/L		76	36 - 120	4	30
2-Methylnaphthalene	<0.19		19.2	16.4		ug/L		85	32 - 124	3	30
Acenaphthene	<0.19		19.2	15.5		ug/L		81	47 - 145	3	48
Acenaphthylene	<0.19		19.2	14.6		ug/L		76	33 - 145	1	74
Anthracene	<0.19		19.2	15.9		ug/L		83	27 - 133	1	66
Benzo[a]anthracene	<0.19		19.2	15.9		ug/L		83	33 - 143	1	53
Benzo[a]pyrene	<0.19		19.2	15.8		ug/L		82	17 - 163	3	72
Benzo[b]fluoranthene	<0.19		19.2	15.9		ug/L		83	24 - 159	1	71
Benzo[g,h,i]perylene	<0.19		19.2	14.6		ug/L		76	1 - 219	2	97
Benzo[k]fluoranthene	<0.19		19.2	16.2		ug/L		84	11 - 162	7	63
Chrysene	<0.19		19.2	15.6		ug/L		81	17 - 168	0	87
Dibenz(a,h)anthracene	<0.19		19.2	16.1		ug/L		84	1 - 227	1	126
Fluoranthene	<0.19		19.2	16.3		ug/L		85	26 - 137	2	66
Fluorene	<0.19		19.2	16.2		ug/L		84	59 - 121	3	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	16.3		ug/L		85	1 - 171	0	99
Naphthalene	<0.19		19.2	13.8		ug/L		72	21 - 133	3	65
Phenanthrene	<0.19		19.2	15.6		ug/L		81	54 - 120	1	39
Pyrene	<0.19		19.2	16.4		ug/L		85	52 - 120	0	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	77		28 - 127
2-Fluorobiphenyl (Surr)	77		31 - 120
2-Fluorophenol (Surr)	51		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	87		45 - 120

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: MB 570-541268/6

Matrix: Water

Analysis Batch: 541268

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			03/05/25 12:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		38 - 134				03/05/25 12:21	1

Lab Sample ID: LCS 570-541268/4

Matrix: Water

Analysis Batch: 541268

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	436		ug/L		109	78 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	94		38 - 134					

Lab Sample ID: LCSD 570-541268/7

Matrix: Water

Analysis Batch: 541268

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	438		ug/L		109	78 - 120	1	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		38 - 134						

Lab Sample ID: MRL 570-541268/3

Matrix: Water

Analysis Batch: 541268

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	12.8		ug/L		128	50 - 150	
Surrogate	MRL %Recovery	MRL Qualifier	Limits					
4-Bromofluorobenzene (Surr)	79		38 - 134					

Lab Sample ID: 380-137626-B-1 MS

Matrix: Water

Analysis Batch: 541268

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	<10		400	417		ug/L		104	68 - 122	
Surrogate	MS %Recovery	MS Qualifier	Limits							
4-Bromofluorobenzene (Surr)	98		38 - 134							

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: 380-137626-B-1 MSD

Matrix: Water

Analysis Batch: 541268

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	444		ug/L		111	68 - 122	6	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		38 - 134								

Lab Sample ID: 380-137752-C-1 MS

Matrix: Water

Analysis Batch: 541268

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	439		ug/L		110	68 - 122		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		38 - 134								

Lab Sample ID: 380-137752-C-1 MSD

Matrix: Water

Analysis Batch: 541268

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	410		ug/L		103	68 - 122	7	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		38 - 134								

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

Lab Sample ID: MB 570-539581/1-A

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539581

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		02/28/25 12:00	03/10/25 14:09	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		02/28/25 12:00	03/10/25 14:09	1
C8-C18	<25		25	ug/L		02/28/25 12:00	03/10/25 14:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	104		60 - 130			02/28/25 12:00	03/10/25 14:09	1

Lab Sample ID: LCS 570-539581/2-A

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539581

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	1600	1570		ug/L		98	56 - 127		

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137743-1
SDG: Weekly

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

Lab Sample ID: LCS 570-539581/2-A

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539581

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	121		60 - 130

Lab Sample ID: LCSD 570-539581/3-A

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 539581

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28			1600	1360		ug/L		85	56 - 127	14	23

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	104		60 - 130

Lab Sample ID: MRL 570-539581/4-A

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539581

			Spike	MRL	MRL				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
C10-C28			0.0200	<0.020		mg/L		96	50 - 150		

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	101		60 - 130

Lab Sample ID: 380-137752-B-1-A MS

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 539581

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
C10-C28	<26		1640	1470		ug/L		90	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	107		60 - 130

Lab Sample ID: 380-137752-B-1-B MSD

Matrix: Water

Analysis Batch: 543020

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 539581

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	<26		1660	1500		ug/L		90	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	110		60 - 130

QC Association Summary

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

Job ID: 380-137743-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 138422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	525.2	
MB 380-138422/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-138422/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-138422/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-138422/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-137743-1 MS	Ka'amilo Wells	Total/NA	Water	525.2	
380-137756-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 138710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	525.2	138422
MB 380-138422/21-A	Method Blank	Total/NA	Water	525.2	138422
LCS 380-138422/23-A	Lab Control Sample	Total/NA	Water	525.2	138422
LCSD 380-138422/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	138422
MRL 380-138422/22-A	Lab Control Sample	Total/NA	Water	525.2	138422
380-137743-1 MS	Ka'amilo Wells	Total/NA	Water	525.2	138422
380-137756-B-1-A DU	Duplicate	Total/NA	Water	525.2	138422

Prep Batch: 539018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	625.1	
MB 570-539018/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-539018/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-539018/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-137752-A-1-B MS	Matrix Spike	Total/NA	Water	625.1	
380-137752-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 540452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	539018
MB 570-539018/1-A	Method Blank	Total/NA	Water	625.1 SIM	539018
LCS 570-539018/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	539018
LCSD 570-539018/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	539018
380-137752-A-1-B MS	Matrix Spike	Total/NA	Water	625.1 SIM	539018
380-137752-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	539018

Analysis Batch: 543810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	625.1	539018

GC VOA

Analysis Batch: 541268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-137743-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
MB 570-541268/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-541268/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-541268/7	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-541268/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-137626-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-137743-1
SDG: Weekly

GC VOA (Continued)

Analysis Batch: 541268 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137626-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	
380-137752-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-137752-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 539581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	3510C	
MB 570-539581/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-539581/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-539581/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-539581/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-137752-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-137752-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 543020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137743-1	Ka'amilo Wells	Total/NA	Water	8015B	539581
MB 570-539581/1-A	Method Blank	Total/NA	Water	8015B	539581
LCS 570-539581/2-A	Lab Control Sample	Total/NA	Water	8015B	539581
LCSD 570-539581/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	539581
MRL 570-539581/4-A	Lab Control Sample	Total/NA	Water	8015B	539581
380-137752-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	539581
380-137752-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	539581

Lab Chronicle

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

Job ID: 380-137743-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-137743-1

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			138422	OTM3	EA POM	02/27/25 10:34
Total/NA	Analysis	525.2		1	138710	Q8LA	EA POM	02/28/25 14:57
Total/NA	Prep	625.1			539018	H1SH	EET CAL 4	02/28/25 04:41
Total/NA	Analysis	625.1		1	543810	J7WE	EET CAL 4	03/11/25 21:43
Total/NA	Prep	625.1			539018	H1SH	EET CAL 4	02/28/25 04:41
Total/NA	Analysis	625.1 SIM		1	540452	PQS1	EET CAL 4	03/03/25 23:34
Total/NA	Analysis	8015B GRO LL		1	541268	A9VE	EET CAL 4	03/05/25 16:06
Total/NA	Prep	3510C			539581	TVD6	EET CAL 4	02/28/25 12:00
Total/NA	Analysis	8015B		1	543020	H6FE	EET CAL 4	03/10/25 19:26

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-137743-2

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	541268	A9VE	EET CAL 4	03/05/25 20:54

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: 380-137743-1
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	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
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
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-137743-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA001112025-8	02-28-26
Washington	State	C916	10-11-25

Method Summary

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

Job ID: 380-137743-1
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: 380-137743-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-137743-1	Ka'amilo Wells	Water	02/24/25 11:58	02/26/25 10:29
380-137743-2	TB: Ka'amilo Wells	Water	02/24/25 11:58	02/26/25 10:29

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Chain of Custody Record

Client Information		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-28005-2757 1	
Client Contact: Kirk Iwamoto		Phone: +1 808 748 5840		Page: Page 1 of 1	
Company: City & County of Honolulu		E-Mail: Rachelle.Arada@et.eurofins.com		Job #:	
Address: 630 South Beretania Street Chemistry Lab		City: Honolulu		State of Origin:	
State Zip: HI, 96843		TAT Requested (days):		Analysis Requested	
Phone: 808-748-5840 (Tel)		Compliance Project: ☐ Yes ☒ No		Preservation Codes: R - NaOH/SO4 RA - NaOH/HCl G - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate	
Email: kiwamoto@hbws.org		PO #: C20525101 exp 05312023		Other:	
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		WO #: 38001111		Total Number of Containers	
Site: Hawaii		SSOW#:		Special Instructions/Note:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=other, A=air)
Ka'amilo Wells	24-Feb-2025	1158	G	Water	Water
Ka'amilo Wells (Matrix Spike)				Water	Water
Ka'amilo Wells (Matrix Spike Duplicate)				Water	Water
TB: Ka'amilo Wells	24-Feb-2025	1158		Water	Water
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested 1, II, III, IV Other (specify)				☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Empty Kit Relinquished by		Date		Special Instructions/QC Requirements	
Relinquished by		Date/Time: 25 February 2025 1400		Method of Shipment: FEDEX 7723 1110 5226	
Relinquished by		Date/Time:		Date/Time: 02/26/25 10:29	
Relinquished by		Date/Time:		Date/Time:	
Custody Seals Intact: ☐ Yes ☒ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: (75A) 0.8°-0.0°=0.8' 65.1°	

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

SHIP DATE: 25FEB25
ACTWGT: 58.00 LB
CAD: 258050552/INET4535

BILL RECIPIENT

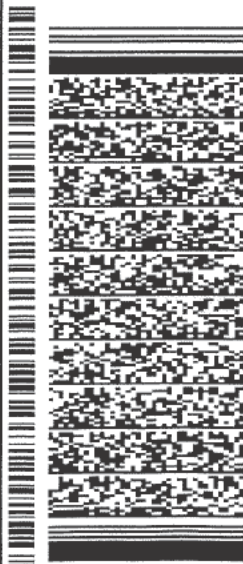
TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

POMONA CA 91768

(626) 386-1100 REF-

58CJ4/26DE/C6C4

PO- DEPT.



WED - 26 FEB 10:30A

2 of 5

PRIORITY OVERNIGHT

MPS# 7723 1110 5215

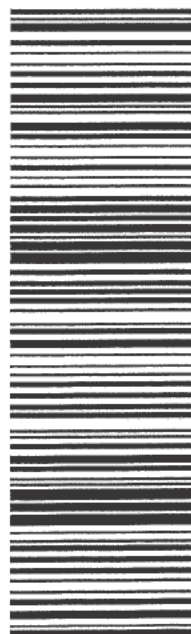
Mstr# 7723 1110 5204

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91768

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CA-US ONT



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02/26/25 10:29
(751A) 0.70-0000.7
GEL-FROZEN

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-137743-1

SDG Number: Weekly

Login Number: 137743

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Ngo, Theodore

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.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
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: 380-137743-1

SDG Number: Weekly

Login Number: 137743

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 02/27/25 02:17 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	2.2
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	