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# 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

380-136977-1

# 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](mailto: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: 380-136977-1  
SDG: Weekly

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA TICs

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

## 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: 380-136977-1

**Job ID: 380-136977-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-136977-1

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 2/21/2025 9:34 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 0.5°C and 0.9°C.

### 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: 380-136977-1  
SDG: Weekly

## Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-136977-1

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: 380-136977-2

No Detections.

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

Lab Sample ID: 380-136977-3

No Detections.

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

Lab Sample ID: 380-136977-4

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

**Client Sample ID: Ka'amilo Wells**

**Lab Sample ID: 380-136977-1**

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

**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		02/25/25 07:06	02/25/25 16:52	1
2,4'-DDD	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
2,4'-DDE	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
2,4'-DDT	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
2-Methylnaphthalene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
4,4'-DDD	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
4,4'-DDE	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
4,4'-DDT	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Acenaphthene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Acenaphthylene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Acetochlor	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Alachlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
alpha-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
alpha-Chlordane	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Anthracene	<0.019		0.019	ug/L		02/25/25 07:06	02/25/25 16:52	1
Atrazine	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Benz(a)anthracene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Benzo[a]pyrene	<0.019		0.019	ug/L		02/25/25 07:06	02/25/25 16:52	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		02/25/25 07:06	02/25/25 16:52	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		02/25/25 07:06	02/25/25 16:52	1
beta-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		02/25/25 07:06	02/25/25 16:52	1
Bromacil	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Butachlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Butylbenzylphthalate	<0.48		0.48	ug/L		02/25/25 07:06	02/25/25 16:52	1
Chlorobenzilate	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Chloroneb	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Chlorpyrifos	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Chrysene	<0.019		0.019	ug/L		02/25/25 07:06	02/25/25 16:52	1
delta-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		02/25/25 07:06	02/25/25 16:52	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
<b>Dieldrin</b>	<b>0.030</b>		0.0097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Diethylphthalate	<0.48		0.48	ug/L		02/25/25 07:06	02/25/25 16:52	1
Dimethylphthalate	<0.48		0.48	ug/L		02/25/25 07:06	02/25/25 16:52	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		02/25/25 07:06	02/25/25 16:52	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Endosulfan sulfate	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Endrin	<0.0097		0.0097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Endrin aldehyde	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
EPTC	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Fluoranthene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1

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# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

**Client Sample ID: Ka'amilo Wells**

**Lab Sample ID: 380-136977-1**

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

**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		02/25/25 07:06	02/25/25 16:52	1
gamma-Chlordane	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Heptachlor	<0.0097	^3+	0.0097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Hexachlorobenzene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Isophorone	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Lindane	<0.0097		0.0097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Malathion	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Methoxychlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Metolachlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Molinate	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Naphthalene	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Parathion	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Phenanthrene	<0.039		0.039	ug/L		02/25/25 07:06	02/25/25 16:52	1
Propachlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Pyrene	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Simazine	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Terbacil	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Terbutylazine	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Thiobencarb	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		02/25/25 07:06	02/25/25 16:52	1
trans-Nonachlor	<0.048		0.048	ug/L		02/25/25 07:06	02/25/25 16:52	1
Trifluralin	<0.097		0.097	ug/L		02/25/25 07:06	02/25/25 16:52	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	02/25/25 07:06	02/25/25 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	02/25/25 07:06	02/25/25 16:52	1
Perylene-d12	90		70 - 130	02/25/25 07:06	02/25/25 16:52	1
Triphenylphosphate	96		70 - 130	02/25/25 07:06	02/25/25 16:52	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		02/24/25 05:42	02/27/25 15:32	1
2-Methylnaphthalene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Acenaphthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Acenaphthylene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Benzo[a]anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Benzo[a]pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Chrysene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1

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# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

**Client Sample ID: Ka'amilo Wells**

**Lab Sample ID: 380-136977-1**

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

**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		02/24/25 05:42	02/27/25 15:32	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Naphthalene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Phenanthrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1
Pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	75		28 - 127	02/24/25 05:42	02/27/25 15:32	1
2-Fluorobiphenyl (Surr)	81		31 - 120	02/24/25 05:42	02/27/25 15:32	1
2-Fluorophenol (Surr)	55		17 - 120	02/24/25 05:42	02/27/25 15:32	1
Nitrobenzene-d5 (Surr)	84		27 - 120	02/24/25 05:42	02/27/25 15:32	1
Phenol-d6 (Surr)	35		10 - 120	02/24/25 05:42	02/27/25 15:32	1
p-Terphenyl-d14 (Surr)	76		45 - 120	02/24/25 05:42	02/27/25 15:32	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
Methylene Chloride	68	T J N	ug/L		1.71	75-09-2	02/24/25 05:42	02/27/25 16:05	1
Unknown	17	T J	ug/L		2.14	N/A	02/24/25 05:42	02/27/25 16:05	1
Unknown	12	T J	ug/L		2.51	N/A	02/24/25 05:42	02/27/25 16:05	1
2-Pentenal, (E)-	31	T J N	ug/L		2.71	1576-87-0	02/24/25 05:42	02/27/25 16:05	1
Octane, 2-chloro-	12	T J N	ug/L		2.79	628-61-5	02/24/25 05:42	02/27/25 16:05	1
2-Pentene, 2,3,4-trimethyl-	16	T J N	ug/L		2.91	565-77-5	02/24/25 05:42	02/27/25 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		33 - 139	02/24/25 05:42	02/27/25 16:05	1
2-Fluorobiphenyl (Surr)	84		33 - 126	02/24/25 05:42	02/27/25 16:05	1
2-Fluorophenol (Surr)	60		12 - 120	02/24/25 05:42	02/27/25 16:05	1
Nitrobenzene-d5 (Surr)	94		36 - 120	02/24/25 05:42	02/27/25 16:05	1
Phenol-d6 (Surr)	37		10 - 120	02/24/25 05:42	02/27/25 16:05	1
p-Terphenyl-d14 (Surr)	69		47 - 131	02/24/25 05:42	02/27/25 16:05	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			02/28/25 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		38 - 134		02/28/25 20:08	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		02/23/25 13:30	02/24/25 22:12	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		02/23/25 13:30	02/24/25 22:12	1
C8-C18	<25		25	ug/L		02/23/25 13:30	02/24/25 22:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 130	02/23/25 13:30	02/24/25 22:12	1

# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

**Client Sample ID: TB: Ka'amilo Wells**

**Lab Sample ID: 380-136977-2**

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

**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			02/28/25 16:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		38 - 134				02/28/25 16:13	1

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

**Lab Sample ID: 380-136977-3**

Date Collected: 02/18/25 10:36

Matrix: Drinking Water

Date Received: 02/21/25 09:34

**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		02/25/25 07:06	02/26/25 10:00	1
2,4'-DDD	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
2,4'-DDE	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
2,4'-DDT	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
2-Methylnaphthalene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
4,4'-DDD	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
4,4'-DDE	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
4,4'-DDT	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Acenaphthene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Acenaphthylene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Acetochlor	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Alachlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
alpha-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
alpha-Chlordane	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Anthracene	<0.019		0.019	ug/L		02/25/25 07:06	02/26/25 10:00	1
Atrazine	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Benz(a)anthracene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Benzo[a]pyrene	<0.019		0.019	ug/L		02/25/25 07:06	02/26/25 10:00	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		02/25/25 07:06	02/26/25 10:00	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		02/25/25 07:06	02/26/25 10:00	1
beta-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		02/25/25 07:06	02/26/25 10:00	1
Bromacil	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Butachlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Butylbenzylphthalate	<0.49		0.49	ug/L		02/25/25 07:06	02/26/25 10:00	1
Chlorobenzilate	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Chloroneb	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Chlorpyrifos	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Chrysene	<0.019		0.019	ug/L		02/25/25 07:06	02/26/25 10:00	1
delta-BHC	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		02/25/25 07:06	02/26/25 10:00	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Dieldrin	<0.0097		0.0097	ug/L		02/25/25 07:06	02/26/25 10:00	1

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# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-136977-3**

**Date Collected: 02/18/25 10:36**

**Matrix: Drinking Water**

**Date Received: 02/21/25 09:34**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diethylphthalate	<0.49		0.49	ug/L		02/25/25 07:06	02/26/25 10:00	1
Dimethylphthalate	<0.49		0.49	ug/L		02/25/25 07:06	02/26/25 10:00	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		02/25/25 07:06	02/26/25 10:00	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Endosulfan sulfate	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Endrin	<0.0097		0.0097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Endrin aldehyde	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
EPTC	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Fluoranthene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Fluorene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
gamma-Chlordane	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Heptachlor	<0.0097	^3+	0.0097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Hexachlorobenzene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Isophorone	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Lindane	<0.0097		0.0097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Malathion	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Methoxychlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Metolachlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Molinate	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Naphthalene	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Parathion	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Phenanthrene	<0.039		0.039	ug/L		02/25/25 07:06	02/26/25 10:00	1
Propachlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Pyrene	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Simazine	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Terbacil	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Terbutylazine	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Thiobencarb	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		02/25/25 07:06	02/26/25 10:00	1
trans-Nonachlor	<0.049		0.049	ug/L		02/25/25 07:06	02/26/25 10:00	1
Trifluralin	<0.097		0.097	ug/L		02/25/25 07:06	02/26/25 10:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	02/25/25 07:06	02/26/25 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	02/25/25 07:06	02/26/25 10:00	1
Perylene-d12	83		70 - 130	02/25/25 07:06	02/26/25 10:00	1
Triphenylphosphate	97		70 - 130	02/25/25 07:06	02/26/25 10:00	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		02/24/25 05:42	02/27/25 15:54	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-136977-3**

**Date Collected: 02/18/25 10:36**

**Matrix: Drinking Water**

**Date Received: 02/21/25 09:34**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Acenaphthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Acenaphthylene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Benzo[a]anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Benzo[a]pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Chrysene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Fluoranthene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Fluorene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Naphthalene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Phenanthrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1
Pyrene	<0.19		0.19	ug/L		02/24/25 05:42	02/27/25 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		28 - 127	02/24/25 05:42	02/27/25 15:54	1
2-Fluorobiphenyl (Surr)	79		31 - 120	02/24/25 05:42	02/27/25 15:54	1
2-Fluorophenol (Surr)	54		17 - 120	02/24/25 05:42	02/27/25 15:54	1
Nitrobenzene-d5 (Surr)	81		27 - 120	02/24/25 05:42	02/27/25 15:54	1
Phenol-d6 (Surr)	34		10 - 120	02/24/25 05:42	02/27/25 15:54	1
p-Terphenyl-d14 (Surr)	77		45 - 120	02/24/25 05:42	02/27/25 15:54	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	44	T J N	ug/L		1.72	75-09-2	02/24/25 05:42	02/27/25 16:27	1
Unknown	8.7	T J	ug/L		2.14	N/A	02/24/25 05:42	02/27/25 16:27	1
Unknown	12	T J	ug/L		2.51	N/A	02/24/25 05:42	02/27/25 16:27	1
2-Pentenal, (E)-	29	T J N	ug/L		2.71	1576-87-0	02/24/25 05:42	02/27/25 16:27	1
1-Heptene, 4-methyl-	12	T J N	ug/L		2.79	13151-05-8	02/24/25 05:42	02/27/25 16:27	1
Pyridine, 2-fluoro-	18	T J N	ug/L		2.91	372-48-5	02/24/25 05:42	02/27/25 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	64		33 - 139	02/24/25 05:42	02/27/25 16:27	1
2-Fluorobiphenyl (Surr)	92		33 - 126	02/24/25 05:42	02/27/25 16:27	1
2-Fluorophenol (Surr)	57		12 - 120	02/24/25 05:42	02/27/25 16:27	1
Nitrobenzene-d5 (Surr)	87		36 - 120	02/24/25 05:42	02/27/25 16:27	1
Phenol-d6 (Surr)	33		10 - 120	02/24/25 05:42	02/27/25 16:27	1
p-Terphenyl-d14 (Surr)	66		47 - 131	02/24/25 05:42	02/27/25 16:27	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			02/28/25 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		38 - 134		02/28/25 20:34	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-136977-3**

Date Collected: 02/18/25 10:36

Matrix: Drinking Water

Date Received: 02/21/25 09:34

**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)	<27		27	ug/L		02/23/25 13:30	02/24/25 22:33	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		02/23/25 13:30	02/24/25 22:33	1
C8-C18	<27		27	ug/L		02/23/25 13:30	02/24/25 22:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	94		60 - 130			02/23/25 13:30	02/24/25 22:33	1

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

**Lab Sample ID: 380-136977-4**

Date Collected: 02/18/25 10:36

Matrix: Water

Date Received: 02/21/25 09:34

**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			02/28/25 19:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		38 - 134				02/28/25 19:42	1

# Action Limit Summary

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

Job ID: 380-136977-1  
SDG: Weekly

**Client Sample ID: Ka'amilo Wells**

**Lab Sample ID: 380-136977-1**

## 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	^3+	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

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

**Lab Sample ID: 380-136977-3**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	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	<0.019		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	^3+	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	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	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: 380-136977-1  
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)
380-136977-3	AIEA GULCH WELLS PUMP 2 (	97	83	97

**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)
380-135745-AJ-1-A MS	Matrix Spike	100	98	106
380-136977-1	Ka'amilo Wells	96	90	96
380-136977-1 DU	Ka'amilo Wells	99	99	103
LCS 380-137708/23-A	Lab Control Sample	97	98	106
MB 380-137708/21-A	Method Blank	96	97	106
MRL 380-137708/22-A	Lab Control Sample	99	102	105

**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)
380-136977-3	AIEA GULCH WELLS PUMP 2 (	64	92	57	87	33	66

**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)
380-136977-1	Ka'amilo Wells	67	84	60	94	37	69
MB 570-537230/1-A	Method Blank	61	81	54	77	38	77

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

# Surrogate Summary

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

Job ID: 380-136977-1  
 SDG: Weekly

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)
380-136977-3	AIEA GULCH WELLS PUMP 2 (	72	79	54	81	34	77

### 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)
380-136977-1	Ka'amilo Wells	75	81	55	84	35	76
380-136981-A-1-A MS	Matrix Spike	72	72	60	81	39	75
380-136981-A-1-B MSD	Matrix Spike Duplicate	70	74	55	72	37	75
LCS 570-537230/2-A	Lab Control Sample	74	81	63	73	43	80
LCS 570-537230/3-A	Lab Control Sample Dup	74	79	57	71	40	82
MB 570-537230/1-A	Method Blank	70	68	46	70	31	75

### 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)
380-136977-3	AIEA GULCH WELLS PUMP 2 (	78

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)



# Surrogate Summary

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

Job ID: 380-136977-1  
 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)
380-136977-1	Ka'amilo Wells	76
380-136977-2	TB: Ka'amilo Wells	73
380-136977-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	81
380-136981-C-1 MS	Matrix Spike	99
380-136981-C-1 MSD	Matrix Spike Duplicate	98
LCS 570 539460/1011	Lab Control Sample	94
LCSD 570-539460/12	Lab Control Sample Dup	100
MB 570-539460/13	Method Blank	76
MRL 570-539460/1006	Lab Control Sample	76

**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)
380-136977-3	AIEA GULCH WELLS PUMP 2 (	94

**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)
380-136977-1	Ka'amilo Wells	88
380-136981-B-1-A MS	Matrix Spike	97
380-136981-B-1-B MSD	Matrix Spike Duplicate	94
LCS 570-537151/2-A	Lab Control Sample	87
LCSD 570-537151/3-A	Lab Control Sample Dup	89
MB 570-537151/1-A	Method Blank	93
MRL 570-537151/4-A	Lab Control Sample	95

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-136977-1  
 SDG: Weekly

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

**Lab Sample ID: MB 380-137708/21-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2,4'-DDD	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2,4'-DDE	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2,4'-DDT	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
2-Methylnaphthalene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
4,4'-DDD	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
4,4'-DDE	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
4,4'-DDT	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Acenaphthene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Acenaphthylene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Acetochlor	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Alachlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
alpha-BHC	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
alpha-Chlordane	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Anthracene	<0.020		0.020	ug/L		02/25/25 07:06	02/25/25 16:11	1
Atrazine	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Benz(a)anthracene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Benzo[a]pyrene	<0.020		0.020	ug/L		02/25/25 07:06	02/25/25 16:11	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		02/25/25 07:06	02/25/25 16:11	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		02/25/25 07:06	02/25/25 16:11	1
beta-BHC	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		02/25/25 07:06	02/25/25 16:11	1
Bromacil	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Butachlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Butylbenzylphthalate	<0.50		0.50	ug/L		02/25/25 07:06	02/25/25 16:11	1
Chlorobenzilate	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Chloroneb	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Chlorpyrifos	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Chrysene	<0.020		0.020	ug/L		02/25/25 07:06	02/25/25 16:11	1
delta-BHC	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		02/25/25 07:06	02/25/25 16:11	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Dieldrin	<0.0099		0.0099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Diethylphthalate	<0.50		0.50	ug/L		02/25/25 07:06	02/25/25 16:11	1
Dimethylphthalate	<0.50		0.50	ug/L		02/25/25 07:06	02/25/25 16:11	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		02/25/25 07:06	02/25/25 16:11	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Endosulfan sulfate	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Endrin	<0.0099		0.0099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Endrin aldehyde	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
EPTC	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1

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# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-137708/21-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Fluorene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
gamma-Chlordane	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Heptachlor	<0.0099	^3+	0.0099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Hexachlorobenzene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Isophorone	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Lindane	<0.0099		0.0099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Malathion	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Methoxychlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Metolachlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Molinate	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Naphthalene	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Parathion	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Phenanthrene	<0.040		0.040	ug/L		02/25/25 07:06	02/25/25 16:11	1
Propachlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Pyrene	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Simazine	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Terbacil	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Terbutylazine	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Thiobencarb	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		02/25/25 07:06	02/25/25 16:11	1
trans-Nonachlor	<0.050		0.050	ug/L		02/25/25 07:06	02/25/25 16:11	1
Trifluralin	<0.099		0.099	ug/L		02/25/25 07:06	02/25/25 16:11	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.633	T J	ug/L		2.65	N/A	02/25/25 07:06	02/25/25 16:11	1
Decane	1.97	T J N	ug/L		2.92	124-18-5	02/25/25 07:06	02/25/25 16:11	1
9-Octadecenamide, (Z)-	2.54	T J N	ug/L		8.26	301-02-0	02/25/25 07:06	02/25/25 16:11	1
13-Docosenamide, (Z)-	1.97	T J N	ug/L		10.93	112-84-5	02/25/25 07:06	02/25/25 16:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	02/25/25 07:06	02/25/25 16:11	1
Perylene-d12	97		70 - 130	02/25/25 07:06	02/25/25 16:11	1
Triphenylphosphate	106		70 - 130	02/25/25 07:06	02/25/25 16:11	1

**Lab Sample ID: LCS 380-137708/23-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.99	1.81		ug/L		91	70 - 130
2,4'-DDD	1.99	1.97		ug/L		99	70 - 130
2,4'-DDE	1.99	2.00		ug/L		101	70 - 130
2,4'-DDT	1.99	1.95		ug/L		98	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: LCS 380-137708/23-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.99	2.02		ug/L		102	70 - 130
2,6-Dinitrotoluene	1.99	2.00		ug/L		100	70 - 130
2-Methylnaphthalene	1.99	1.85		ug/L		93	70 - 130
4,4'-DDD	1.99	1.97		ug/L		99	70 - 130
4,4'-DDE	1.99	2.03		ug/L		102	70 - 130
4,4'-DDT	1.99	2.04		ug/L		103	70 - 130
Acenaphthene	1.99	1.96		ug/L		98	70 - 130
Acenaphthylene	1.99	1.90		ug/L		96	70 - 130
Acetochlor	1.99	2.06		ug/L		104	70 - 130
Alachlor	1.99	2.13		ug/L		107	70 - 130
alpha-BHC	1.99	1.85		ug/L		93	70 - 130
alpha-Chlordane	1.99	1.81		ug/L		91	70 - 130
Anthracene	1.99	1.70		ug/L		85	70 - 130
Atrazine	1.99	2.10		ug/L		106	70 - 130
Benz(a)anthracene	1.99	1.91		ug/L		96	70 - 130
Benzo[a]pyrene	1.99	1.92		ug/L		97	70 - 130
Benzo[b]fluoranthene	1.99	2.13		ug/L		107	70 - 130
Benzo[g,h,i]perylene	1.99	2.00		ug/L		100	70 - 130
Benzo[k]fluoranthene	1.99	2.00		ug/L		101	70 - 130
beta-BHC	1.99	1.93		ug/L		97	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.89		ug/L		95	70 - 130
Bromacil	1.99	2.08		ug/L		105	70 - 130
Butachlor	1.99	2.02		ug/L		102	70 - 130
Butylbenzylphthalate	1.99	2.12		ug/L		107	70 - 130
Chlorobenzilate	1.99	1.95		ug/L		98	70 - 130
Chloroneb	1.99	2.12		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.00		ug/L		101	70 - 130
Chlorpyrifos	1.99	2.05		ug/L		103	70 - 130
Chrysene	1.99	1.87		ug/L		94	70 - 130
delta-BHC	1.99	1.88		ug/L		94	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.07		ug/L		104	70 - 130
Dibenz(a,h)anthracene	1.99	1.94		ug/L		97	70 - 130
Diclorvos (DDVP)	1.99	1.96		ug/L		98	70 - 130
Dieldrin	1.99	1.98		ug/L		100	70 - 130
Diethylphthalate	1.99	1.93		ug/L		97	70 - 130
Dimethylphthalate	1.99	1.95		ug/L		98	70 - 130
Di-n-butyl phthalate	3.98	4.11		ug/L		103	70 - 130
Di-n-octyl phthalate	1.99	1.79		ug/L		90	70 - 130
Endosulfan I (Alpha)	1.99	1.89		ug/L		95	70 - 130
Endosulfan II (Beta)	1.99	1.87		ug/L		94	70 - 130
Endosulfan sulfate	1.99	2.07		ug/L		104	70 - 130
Endrin	1.99	2.12		ug/L		106	70 - 130
Endrin aldehyde	1.99	1.90		ug/L		96	60 - 130
EPTC	1.99	1.94		ug/L		98	70 - 130
Fluoranthene	1.99	2.02		ug/L		102	70 - 130
Fluorene	1.99	1.89		ug/L		95	70 - 130
gamma-Chlordane	1.99	1.84		ug/L		93	70 - 130
Heptachlor	1.99	2.05		ug/L		103	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.93		ug/L		97	70 - 130

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# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: LCS 380-137708/23-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.99	1.92		ug/L		96	70 - 130
Hexachlorocyclopentadiene	1.99	2.10		ug/L		106	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	1.97		ug/L		99	70 - 130
Isophorone	1.99	1.82		ug/L		91	70 - 130
Lindane	1.99	1.95		ug/L		98	70 - 130
Malathion	1.99	2.02		ug/L		102	70 - 130
Methoxychlor	1.99	1.99		ug/L		100	70 - 130
Metolachlor	1.99	2.14		ug/L		107	70 - 130
Molinate	1.99	1.97		ug/L		99	70 - 130
Naphthalene	1.99	1.92		ug/L		96	70 - 130
Parathion	1.99	2.01		ug/L		101	70 - 130
Pendimethalin (Penoxaline)	1.99	1.95		ug/L		98	70 - 130
Phenanthrene	1.99	1.88		ug/L		95	70 - 130
Propachlor	1.99	2.04		ug/L		103	70 - 130
Pyrene	1.99	1.99		ug/L		100	70 - 130
Simazine	1.99	2.11		ug/L		106	70 - 130
Terbacil	1.99	2.19		ug/L		110	70 - 130
Terbutylazine	1.99	2.14		ug/L		107	70 - 130
Thiobencarb	1.99	2.00		ug/L		101	70 - 130
trans-Nonachlor	1.99	1.87		ug/L		94	70 - 130
Trifluralin	1.99	1.73		ug/L		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	106		70 - 130

**Lab Sample ID: MRL 380-137708/22-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0991	0.106		ug/L		107	50 - 150
2,4'-DDD	0.0991	0.0902	J	ug/L		91	50 - 150
2,4'-DDE	0.0991	0.0989	J	ug/L		100	50 - 150
2,4'-DDT	0.0991	0.113		ug/L		114	50 - 150
2,4-Dinitrotoluene	0.0991	0.111		ug/L		112	50 - 150
2,6-Dinitrotoluene	0.0991	0.111		ug/L		112	50 - 150
2-Methylnaphthalene	0.0991	0.103		ug/L		104	50 - 150
4,4'-DDD	0.0991	0.105		ug/L		106	50 - 150
4,4'-DDE	0.0991	0.103		ug/L		104	50 - 150
4,4'-DDT	0.0991	0.125		ug/L		126	50 - 150
Acenaphthene	0.0991	0.0900	J	ug/L		91	50 - 150
Acenaphthylene	0.0991	0.0969	J	ug/L		98	50 - 150
Acetochlor	0.0991	0.115		ug/L		116	50 - 150
Alachlor	0.0495	0.0502		ug/L		101	50 - 150
alpha-BHC	0.0991	0.110		ug/L		111	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		102	50 - 150

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-137708/22-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	0.0198	0.0223		ug/L		113	50 - 150
Atrazine	0.0495	0.0518		ug/L		105	50 - 150
Benz(a)anthracene	0.0495	0.0566		ug/L		114	50 - 150
Benzo[a]pyrene	0.0198	0.0247		ug/L		125	50 - 150
Benzo[b]fluoranthene	0.0198	0.0201		ug/L		102	50 - 150
Benzo[g,h,i]perylene	0.0495	0.0479	J	ug/L		97	50 - 150
Benzo[k]fluoranthene	0.0198	0.0246		ug/L		124	50 - 150
beta-BHC	0.0991	0.122		ug/L		123	50 - 150
Bis(2-ethylhexyl) phthalate	0.594	0.572	J	ug/L		96	50 - 150
Bromacil	0.0991	0.121		ug/L		122	50 - 150
Butachlor	0.0495	0.0655		ug/L		132	50 - 150
Butylbenzylphthalate	0.495	0.596		ug/L		120	50 - 150
Chlorobenzilate	0.0991	0.110		ug/L		111	50 - 150
Chloroneb	0.0991	0.109		ug/L		110	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0991	0.108		ug/L		109	50 - 150
Chlorpyrifos	0.0495	0.0541		ug/L		109	50 - 150
Chrysene	0.0198	0.0201		ug/L		102	50 - 150
delta-BHC	0.0991	0.106		ug/L		107	50 - 150
Di(2-ethylhexyl)adipate	0.594	0.703		ug/L		118	50 - 150
Dibenz(a,h)anthracene	0.0495	0.0446	J	ug/L		90	50 - 150
Diclorvos (DDVP)	0.0495	0.0585		ug/L		118	50 - 150
Dieldrin	0.00991	0.0122		ug/L		123	50 - 150
Diethylphthalate	0.495	0.510		ug/L		103	50 - 150
Dimethylphthalate	0.495	0.523		ug/L		106	50 - 150
Di-n-butyl phthalate	0.495	0.707	J	ug/L		143	49 - 243
Di-n-octyl phthalate	0.0991	0.0936	J	ug/L		94	50 - 150
Endosulfan I (Alpha)	0.0991	0.0937	J	ug/L		95	50 - 150
Endosulfan II (Beta)	0.0991	0.102		ug/L		103	50 - 150
Endosulfan sulfate	0.0991	0.118		ug/L		119	50 - 150
Endrin	0.00991	0.0125		ug/L		126	50 - 150
Endrin aldehyde	0.0991	0.114		ug/L		115	50 - 150
EPTC	0.0991	0.0954	J	ug/L		96	50 - 150
Fluoranthene	0.0991	0.103		ug/L		104	50 - 150
Fluorene	0.0495	<0.050		ug/L		100	50 - 150
gamma-Chlordane	0.0248	0.0240	J	ug/L		97	50 - 150
Heptachlor	0.00991	0.0190	^3+	ug/L		192	50 - 150
Heptachlor epoxide (isomer B)	0.00991	0.0120		ug/L		122	50 - 150
Hexachlorobenzene	0.0495	0.0457	J	ug/L		92	50 - 150
Hexachlorocyclopentadiene	0.0495	0.0483	J	ug/L		98	50 - 150
Indeno[1,2,3-cd]pyrene	0.0495	0.0487	J	ug/L		98	50 - 150
Isophorone	0.0991	0.113		ug/L		114	50 - 150
Lindane	0.00991	0.0118		ug/L		119	50 - 150
Malathion	0.0991	0.120		ug/L		121	50 - 150
Methoxychlor	0.0495	0.0579		ug/L		117	50 - 150
Metolachlor	0.0495	0.0566		ug/L		114	50 - 150
Molinate	0.0991	0.104		ug/L		105	50 - 150
Naphthalene	0.0991	0.0936	J	ug/L		94	50 - 150
Parathion	0.0991	0.111		ug/L		112	50 - 150
Pendimethalin (Penoxaline)	0.0991	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: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-137708/22-A**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	0.0396	0.0389	J	ug/L		98	50 - 150
Propachlor	0.0495	0.0526		ug/L		106	50 - 150
Pyrene	0.0495	0.0503		ug/L		102	50 - 150
Simazine	0.0495	0.0490	J	ug/L		99	50 - 150
Terbacil	0.0991	0.105		ug/L		106	50 - 150
Terbutylazine	0.0991	0.105		ug/L		106	50 - 150
Thiobencarb	0.0991	0.102		ug/L		103	50 - 150
trans-Nonachlor	0.0248	0.0263	J	ug/L		106	50 - 150
Trifluralin	0.0991	0.108		ug/L		109	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	102		70 - 130
Triphenylphosphate	105		70 - 130

**Lab Sample ID: 380-135745-AJ-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.096		1.93	1.84		ug/L		96	70 - 130
2,4'-DDD	<0.096		1.93	2.01		ug/L		104	70 - 130
2,4'-DDE	<0.096		1.93	2.06		ug/L		107	70 - 130
2,4'-DDT	<0.096		1.93	2.03		ug/L		105	70 - 130
2,4-Dinitrotoluene	<0.096		1.93	2.17		ug/L		112	70 - 130
2,6-Dinitrotoluene	<0.096		1.93	2.13		ug/L		110	70 - 130
2-Methylnaphthalene	<0.096		1.93	1.89		ug/L		98	70 - 130
4,4'-DDD	<0.096		1.93	2.03		ug/L		105	70 - 130
4,4'-DDE	<0.096		1.93	1.98		ug/L		102	70 - 130
4,4'-DDT	<0.096		1.93	2.10		ug/L		109	70 - 130
Acenaphthene	<0.096		1.93	1.97		ug/L		102	70 - 130
Acenaphthylene	<0.096		1.93	1.90		ug/L		98	70 - 130
Acetochlor	<0.096		1.93	2.13		ug/L		110	70 - 130
Alachlor	<0.048		1.93	2.11		ug/L		109	70 - 130
alpha-BHC	<0.096		1.93	1.88		ug/L		97	70 - 130
alpha-Chlordane	<0.048		1.93	1.86		ug/L		96	70 - 130
Anthracene	<0.019	F1	1.93	0.862	F1	ug/L		45	70 - 130
Atrazine	<0.048		1.93	2.04		ug/L		106	70 - 130
Benz(a)anthracene	<0.048		1.93	1.72		ug/L		89	70 - 130
Benzo[a]pyrene	<0.019		1.93	1.55		ug/L		81	70 - 130
Benzo[b]fluoranthene	<0.019		1.93	2.21		ug/L		114	70 - 130
Benzo[g,h,i]perylene	<0.048		1.93	2.03		ug/L		105	70 - 130
Benzo[k]fluoranthene	<0.019		1.93	1.97		ug/L		102	70 - 130
beta-BHC	<0.096		1.93	1.96		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.93	1.87		ug/L		97	70 - 130
Bromacil	<0.096		1.93	2.13		ug/L		110	70 - 130
Butachlor	<0.048		1.93	2.17		ug/L		112	70 - 130
Butylbenzylphthalate	<0.48		1.93	2.16		ug/L		112	70 - 130

# QC Sample Results

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

Job ID: 380-136977-1  
 SDG: Weekly

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

**Lab Sample ID: 380-135745-AJ-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorobenzilate	<0.096		1.93	2.22		ug/L		115	70 - 130
Chloroneb	<0.096		1.93	1.94		ug/L		100	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.096		1.93	2.03		ug/L		105	70 - 130
Chlorpyrifos	<0.048		1.93	2.04		ug/L		106	70 - 130
Chrysene	<0.019		1.93	1.87		ug/L		97	70 - 130
delta-BHC	<0.096		1.93	1.90		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.93	2.00		ug/L		103	70 - 130
Dibenz(a,h)anthracene	<0.048		1.93	1.99		ug/L		103	70 - 130
Diclorvos (DDVP)	<0.048		1.93	2.02		ug/L		105	70 - 130
Dieldrin	<0.0096		1.93	2.02		ug/L		105	70 - 130
Diethylphthalate	<0.48		1.93	1.98		ug/L		102	70 - 130
Dimethylphthalate	<0.48		1.93	1.96		ug/L		102	70 - 130
Di-n-butyl phthalate	<0.96		3.86	4.10		ug/L		101	70 - 130
Di-n-octyl phthalate	<0.096		1.93	1.75		ug/L		91	70 - 130
Endosulfan I (Alpha)	<0.096		1.93	1.94		ug/L		100	70 - 130
Endosulfan II (Beta)	<0.096		1.93	1.89		ug/L		98	70 - 130
Endosulfan sulfate	<0.096		1.93	2.05		ug/L		106	70 - 130
Endrin	<0.0096		1.93	2.15		ug/L		111	70 - 130
Endrin aldehyde	<0.096		1.93	1.76		ug/L		91	60 - 130
EPTC	<0.096		1.93	2.00		ug/L		104	70 - 130
Fluoranthene	<0.096		1.93	2.00		ug/L		104	70 - 130
Fluorene	<0.048		1.93	1.92		ug/L		99	70 - 130
gamma-Chlordane	<0.048		1.93	1.84		ug/L		96	70 - 130
Heptachlor	<0.0096	^3+	1.93	2.11		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	<0.0096		1.93	1.95		ug/L		101	70 - 130
Hexachlorobenzene	<0.048		1.93	1.92		ug/L		99	70 - 130
Hexachlorocyclopentadiene	<0.048		1.93	2.22		ug/L		113	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.93	2.10		ug/L		109	70 - 130
Isophorone	<0.096		1.93	1.86		ug/L		97	70 - 130
Lindane	<0.0096		1.93	2.00		ug/L		104	70 - 130
Malathion	<0.096		1.93	2.07		ug/L		107	70 - 130
Methoxychlor	<0.048		1.93	2.23		ug/L		115	70 - 130
Metolachlor	<0.048		1.93	2.16		ug/L		112	70 - 130
Molinate	<0.096		1.93	2.01		ug/L		104	70 - 130
Naphthalene	<0.096		1.93	1.93		ug/L		100	70 - 130
Parathion	<0.096		1.93	2.18		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	<0.096		1.93	2.23		ug/L		115	70 - 130
Phenanthrene	<0.039		1.93	1.88		ug/L		97	70 - 130
Propachlor	<0.048		1.93	2.13		ug/L		110	70 - 130
Pyrene	<0.048		1.93	1.95		ug/L		101	70 - 130
Simazine	<0.048		1.93	2.01		ug/L		104	70 - 130
Terbacil	<0.096		1.93	2.19		ug/L		114	70 - 130
Terbutylazine	<0.096		1.93	2.16		ug/L		112	70 - 130
Thiobencarb	<0.096		1.93	2.05		ug/L		106	70 - 130
trans-Nonachlor	<0.048		1.93	1.86		ug/L		96	70 - 130
Trifluralin	<0.096		1.93	1.97		ug/L		102	70 - 130



# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-135745-AJ-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	106		70 - 130

**Lab Sample ID: 380-136977-1 DU**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Ka'amilo Wells**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>DU Result</b>	<b>DU Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RPD</b>	<b>Limit</b>
1-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
2,4'-DDD	<0.097		<0.097		ug/L		NC	20
2,4'-DDE	<0.097		<0.097		ug/L		NC	20
2,4'-DDT	<0.097		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
4,4'-DDD	<0.097		<0.097		ug/L		NC	20
4,4'-DDE	<0.097		<0.097		ug/L		NC	20
4,4'-DDT	<0.097		<0.097		ug/L		NC	20
Acenaphthene	<0.097		<0.097		ug/L		NC	20
Acenaphthylene	<0.097		<0.097		ug/L		NC	20
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<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	<0.097		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.097		ug/L		NC	20
Chloroneb	<0.097		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	0.030		0.0281		ug/L		6	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-136977-1 DU**  
**Matrix: Water**  
**Analysis Batch: 137782**

**Client Sample ID: Ka'amilo Wells**  
**Prep Type: Total/NA**  
**Prep Batch: 137708**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097	^3+	<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<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	<0.097		<0.097		ug/L		NC	20
Lindane	<0.0097		<0.0097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<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	<0.097		<0.097		ug/L		NC	20
Terbutylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<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	<0.097		<0.097		ug/L		NC	20

Surrogate	DU %Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	103		70 - 130

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-537230/1-A**  
**Matrix: Water**  
**Analysis Batch: 538945**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>MB MB 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>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>

  

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>61</i>		<i>33 - 139</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>81</i>		<i>33 - 126</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>54</i>		<i>12 - 120</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>77</i>		<i>36 - 120</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>38</i>		<i>10 - 120</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>77</i>		<i>47 - 131</i>	<i>02/24/25 05:42</i>	<i>02/27/25 14:35</i>	<i>1</i>

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

**Lab Sample ID: MB 570-537230/1-A**  
**Matrix: Water**  
**Analysis Batch: 538414**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

<i>Analyte</i>	<i>Result</i>	<i>MB MB Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Acenaphthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Acenaphthylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Benzo[g,h,i]perylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Chrysene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Fluorene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Indeno[1,2,3-cd]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Naphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Phenanthrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>

  

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>70</i>		<i>28 - 127</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>68</i>		<i>31 - 120</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>46</i>		<i>17 - 120</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>70</i>		<i>27 - 120</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>31</i>		<i>10 - 120</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>75</i>		<i>45 - 120</i>	<i>02/24/25 05:42</i>	<i>02/26/25 09:33</i>	<i>1</i>

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-537230/2-A**  
**Matrix: Water**  
**Analysis Batch: 538414**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.9		ug/L		70	47 - 120
2-Methylnaphthalene	20.0	15.9		ug/L		79	43 - 120
Acenaphthene	20.0	17.2		ug/L		86	60 - 132
Acenaphthylene	20.0	16.5		ug/L		83	54 - 126
Anthracene	20.0	16.9		ug/L		84	43 - 120
Benzo[a]anthracene	20.0	16.9		ug/L		84	42 - 133
Benzo[a]pyrene	20.0	17.7		ug/L		89	32 - 148
Benzo[b]fluoranthene	20.0	17.1		ug/L		86	42 - 140
Benzo[g,h,i]perylene	20.0	16.2		ug/L		81	1 - 195
Benzo[k]fluoranthene	20.0	17.3		ug/L		86	25 - 146
Chrysene	20.0	16.0		ug/L		80	44 - 140
Dibenz(a,h)anthracene	20.0	17.0		ug/L		85	1 - 200
Fluoranthene	20.0	17.9		ug/L		89	43 - 121
Fluorene	20.0	17.4		ug/L		87	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.1		ug/L		86	1 - 151
Naphthalene	20.0	14.5		ug/L		73	36 - 120
Phenanthrene	20.0	16.7		ug/L		84	65 - 120
Pyrene	20.0	17.0		ug/L		85	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		28 - 127
2-Fluorobiphenyl (Surr)	81		31 - 120
2-Fluorophenol (Surr)	63		17 - 120
Nitrobenzene-d5 (Surr)	73		27 - 120
Phenol-d6 (Surr)	43		10 - 120
p-Terphenyl-d14 (Surr)	80		45 - 120

**Lab Sample ID: LCSD 570-537230/3-A**  
**Matrix: Water**  
**Analysis Batch: 538414**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.2		ug/L		71	47 - 120	2	20
2-Methylnaphthalene	20.0	16.0		ug/L		80	43 - 120	1	20
Acenaphthene	20.0	16.5		ug/L		83	60 - 132	4	29
Acenaphthylene	20.0	15.9		ug/L		79	54 - 126	4	45
Anthracene	20.0	16.5		ug/L		82	43 - 120	2	40
Benzo[a]anthracene	20.0	16.2		ug/L		81	42 - 133	4	32
Benzo[a]pyrene	20.0	16.7		ug/L		84	32 - 148	6	43
Benzo[b]fluoranthene	20.0	16.4		ug/L		82	42 - 140	5	43
Benzo[g,h,i]perylene	20.0	15.1		ug/L		76	1 - 195	7	61
Benzo[k]fluoranthene	20.0	16.2		ug/L		81	25 - 146	6	38
Chrysene	20.0	15.6		ug/L		78	44 - 140	3	53
Dibenz(a,h)anthracene	20.0	16.0		ug/L		80	1 - 200	6	75
Fluoranthene	20.0	16.1		ug/L		81	43 - 121	10	40
Fluorene	20.0	16.7		ug/L		83	70 - 120	4	23
Indeno[1,2,3-cd]pyrene	20.0	16.2		ug/L		81	1 - 151	5	60
Naphthalene	20.0	14.0		ug/L		70	36 - 120	4	39

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 570-537230/3-A**  
**Matrix: Water**  
**Analysis Batch: 538414**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	16.0		ug/L		80	65 - 120	4	24
Pyrene	20.0	17.0		ug/L		85	70 - 120	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	74		28 - 127
2-Fluorobiphenyl (Surr)	79		31 - 120
2-Fluorophenol (Surr)	57		17 - 120
Nitrobenzene-d5 (Surr)	71		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

**Lab Sample ID: 380-136981-A-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 538930**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 537230**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.1	14.9		ug/L		78	36 - 120
2-Methylnaphthalene	<0.19		19.1	16.4		ug/L		86	32 - 124
Acenaphthene	<0.19		19.1	15.2		ug/L		79	47 - 145
Acenaphthylene	<0.19		19.1	14.3		ug/L		75	33 - 145
Anthracene	<0.19		19.1	15.0		ug/L		79	27 - 133
Benzo[a]anthracene	<0.19		19.1	15.4		ug/L		81	33 - 143
Benzo[a]pyrene	<0.19		19.1	15.4		ug/L		80	17 - 163
Benzo[b]fluoranthene	<0.19		19.1	15.3		ug/L		80	24 - 159
Benzo[g,h,i]perylene	<0.19		19.1	14.4		ug/L		75	1 - 219
Benzo[k]fluoranthene	<0.19		19.1	15.3		ug/L		80	11 - 162
Chrysene	<0.19		19.1	14.8		ug/L		77	17 - 168
Dibenz(a,h)anthracene	<0.19		19.1	15.1		ug/L		79	1 - 227
Fluoranthene	<0.19		19.1	15.5		ug/L		81	26 - 137
Fluorene	<0.19		19.1	15.3		ug/L		80	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.1	15.4		ug/L		80	1 - 171
Naphthalene	<0.19		19.1	16.3		ug/L		85	21 - 133
Phenanthrene	<0.19		19.1	15.0		ug/L		79	54 - 120
Pyrene	<0.19		19.1	15.2		ug/L		80	52 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol (Surr)	72		28 - 127
2-Fluorobiphenyl (Surr)	72		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	81		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	75		45 - 120

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: 380-136981-A-1-B MSD**

**Matrix: Water**

**Analysis Batch: 538930**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 537230**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.2	13.6		ug/L		71	36 - 120	9	30
2-Methylnaphthalene	<0.19		19.2	15.1		ug/L		79	32 - 124	8	30
Acenaphthene	<0.19		19.2	15.1		ug/L		79	47 - 145	0	48
Acenaphthylene	<0.19		19.2	14.3		ug/L		74	33 - 145	0	74
Anthracene	<0.19		19.2	14.8		ug/L		77	27 - 133	2	66
Benzo[a]anthracene	<0.19		19.2	14.5		ug/L		76	33 - 143	6	53
Benzo[a]pyrene	<0.19		19.2	14.6		ug/L		76	17 - 163	6	72
Benzo[b]fluoranthene	<0.19		19.2	14.9		ug/L		78	24 - 159	3	71
Benzo[g,h,i]perylene	<0.19		19.2	13.8		ug/L		72	1 - 219	4	97
Benzo[k]fluoranthene	<0.19		19.2	14.4		ug/L		75	11 - 162	6	63
Chrysene	<0.19		19.2	14.3		ug/L		74	17 - 168	3	87
Dibenz(a,h)anthracene	<0.19		19.2	14.5		ug/L		75	1 - 227	5	126
Fluoranthene	<0.19		19.2	15.2		ug/L		80	26 - 137	2	66
Fluorene	<0.19		19.2	15.3		ug/L		80	59 - 121	0	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	14.7		ug/L		77	1 - 171	5	99
Naphthalene	<0.19		19.2	13.9		ug/L		73	21 - 133	15	65
Phenanthrene	<0.19		19.2	14.7		ug/L		77	54 - 120	2	39
Pyrene	<0.19		19.2	15.3		ug/L		80	52 - 120	0	49

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	70		28 - 127
2-Fluorobiphenyl (Surr)	74		31 - 120
2-Fluorophenol (Surr)	55		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	75		45 - 120

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

**Lab Sample ID: MB 570-539460/13**

**Matrix: Water**

**Analysis Batch: 539460**

**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			02/28/25 15:09	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		38 - 134		02/28/25 15:09	1

**Lab Sample ID: LCS 570-539460/1011**

**Matrix: Water**

**Analysis Batch: 539460**

**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	447		ug/L		112	78 - 120

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-539460/1011**  
**Matrix: Water**  
**Analysis Batch: 539460**

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

	LCS %Recovery	LCS Qualifier	Limits
<b>Surrogate</b> 4-Bromofluorobenzene (Surr)	94		38 - 134

**Lab Sample ID: LCSD 570-539460/12**  
**Matrix: Water**  
**Analysis Batch: 539460**

**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	462		ug/L		115	78 - 120	3	10

	LCSD %Recovery	LCSD Qualifier	Limits
<b>Surrogate</b> 4-Bromofluorobenzene (Surr)	100		38 - 134

**Lab Sample ID: MRL 570-539460/1006**  
**Matrix: Water**  
**Analysis Batch: 539460**

**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	11.2		ug/L		112	50 - 150

	MRL %Recovery	MRL Qualifier	Limits
<b>Surrogate</b> 4-Bromofluorobenzene (Surr)	76		38 - 134

**Lab Sample ID: 380-136981-C-1 MS**  
**Matrix: Water**  
**Analysis Batch: 539460**

**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	441		ug/L		110	68 - 122

	MS %Recovery	MS Qualifier	Limits
<b>Surrogate</b> 4-Bromofluorobenzene (Surr)	99		38 - 134

**Lab Sample ID: 380-136981-C-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 539460**

**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	468		ug/L		117	68 - 122	6	18

	MSD %Recovery	MSD Qualifier	Limits
<b>Surrogate</b> 4-Bromofluorobenzene (Surr)	98		38 - 134

# QC Sample Results

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

Job ID: 380-136977-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-537151/1-A**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		02/23/25 13:21	02/24/25 18:40	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		02/23/25 13:21	02/24/25 18:40	1
C8-C18	<25		25	ug/L		02/23/25 13:21	02/24/25 18:40	1
Surrogate	MB MB		Limits	Prepared		Analyzed	Dil Fac	
	%Recovery	Qualifier						
<i>n-Octacosane (Surr)</i>	93		60 - 130	02/23/25 13:21	02/24/25 18:40	1		

**Lab Sample ID: LCS 570-537151/2-A**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1350		ug/L		84	56 - 127
Surrogate	LCS LCS		Limits	Prepared		Analyzed	Dil Fac
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	87		60 - 130	02/23/25 13:21	02/24/25 18:40	1	

**Lab Sample ID: LCSD 570-537151/3-A**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
C10-C28	1600	1460		ug/L		91	56 - 127	7	23
Surrogate	LCSD LCSD		Limits	Prepared		Analyzed	Dil Fac		
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	89		60 - 130	02/23/25 13:21	02/24/25 18:40	1			

**Lab Sample ID: MRL 570-537151/4-A**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	<0.020		mg/L		83	50 - 150
Surrogate	MRL MRL		Limits	Prepared		Analyzed	Dil Fac
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	95		60 - 130	02/23/25 13:21	02/24/25 18:40	1	

**Lab Sample ID: 380-136981-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
C10-C28	<26		1640	1560		ug/L		95	70 - 130
Surrogate	MS MS		Limits	Prepared		Analyzed	Dil Fac		
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	97		60 - 130	02/23/25 13:21	02/24/25 18:40	1			



# QC Sample Results

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

Job ID: 380-136977-1  
 SDG: Weekly

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

**Lab Sample ID: 380-136981-B-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 537607**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 537151**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1650	1600		ug/L		97	70 - 130	2	20
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>								<b>Limits</b>
<i>n-Octacosane (Surr)</i>		94									60 - 130

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# QC Association Summary

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

Job ID: 380-136977-1  
SDG: Weekly

## GC/MS Semi VOA

### Prep Batch: 137708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	525.2	
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
MB 380-137708/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-137708/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-137708/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-135745-AJ-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-136977-1 DU	Ka'amilo Wells	Total/NA	Water	525.2	

### Analysis Batch: 137782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	525.2	137708
MB 380-137708/21-A	Method Blank	Total/NA	Water	525.2	137708
LCS 380-137708/23-A	Lab Control Sample	Total/NA	Water	525.2	137708
MRL 380-137708/22-A	Lab Control Sample	Total/NA	Water	525.2	137708
380-135745-AJ-1-A MS	Matrix Spike	Total/NA	Water	525.2	137708
380-136977-1 DU	Ka'amilo Wells	Total/NA	Water	525.2	137708

### Analysis Batch: 138007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	137708

### Prep Batch: 537230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	625.1	
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	
MB 570-537230/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-537230/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-537230/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-136981-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-136981-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Analysis Batch: 538414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-537230/1-A	Method Blank	Total/NA	Water	625.1 SIM	537230
LCS 570-537230/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	537230
LCSD 570-537230/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	537230

### Analysis Batch: 538930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	537230
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1 SIM	537230
380-136981-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	537230
380-136981-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	537230

### Analysis Batch: 538945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	625.1	537230
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	537230
MB 570-537230/1-A	Method Blank	Total/NA	Water	625.1	537230

# QC Association Summary

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

Job ID: 380-136977-1  
 SDG: Weekly

## GC VOA

### Analysis Batch: 539460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-136977-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B GRO LL	
380-136977-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Water	8015B GRO LL	
MB 570-539460/13	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-539460/1011	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-539460/12	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-539460/1006	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-136981-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-136981-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 537151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	3510C	
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	3510C	
MB 570-537151/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-537151/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-537151/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-537151/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-136981-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-136981-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 537607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-136977-1	Ka'amilo Wells	Total/NA	Water	8015B	537151
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	537151
MB 570-537151/1-A	Method Blank	Total/NA	Water	8015B	537151
LCS 570-537151/2-A	Lab Control Sample	Total/NA	Water	8015B	537151
LCSD 570-537151/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	537151
MRL 570-537151/4-A	Lab Control Sample	Total/NA	Water	8015B	537151
380-136981-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	537151
380-136981-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	537151

# Lab Chronicle

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

Job ID: 380-136977-1  
SDG: Weekly

## Client Sample ID: Ka'amilo Wells

## Lab Sample ID: 380-136977-1

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			137708	OTM3	EA POM	02/25/25 07:06
Total/NA	Analysis	525.2		1	137782	UPAC	EA POM	02/25/25 16:52
Total/NA	Prep	625.1			537230	H1SH	EET CAL 4	02/24/25 05:42
Total/NA	Analysis	625.1		1	538945	CG	EET CAL 4	02/27/25 16:05
Total/NA	Prep	625.1			537230	H1SH	EET CAL 4	02/24/25 05:42
Total/NA	Analysis	625.1 SIM		1	538930	PQS1	EET CAL 4	02/27/25 15:32
Total/NA	Analysis	8015B GRO LL		1	539460	A9VE	EET CAL 4	02/28/25 20:08
Total/NA	Prep	3510C			537151	TVD6	EET CAL 4	02/23/25 13:30
Total/NA	Analysis	8015B		1	537607	H6FE	EET CAL 4	02/24/25 22:12

## Client Sample ID: TB: Ka'amilo Wells

## Lab Sample ID: 380-136977-2

Date Collected: 02/18/25 11:31

Matrix: Water

Date Received: 02/21/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	539460	A9VE	EET CAL 4	02/28/25 16:13

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

## Lab Sample ID: 380-136977-3

Date Collected: 02/18/25 10:36

Matrix: Drinking Water

Date Received: 02/21/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			137708	OTM3	EA POM	02/25/25 07:06
Total/NA	Analysis	525.2		1	138007	UPAC	EA POM	02/26/25 10:00
Total/NA	Prep	625.1			537230	H1SH	EET CAL 4	02/24/25 05:42
Total/NA	Analysis	625.1		1	538945	CG	EET CAL 4	02/27/25 16:27
Total/NA	Prep	625.1			537230	H1SH	EET CAL 4	02/24/25 05:42
Total/NA	Analysis	625.1 SIM		1	538930	PQS1	EET CAL 4	02/27/25 15:54
Total/NA	Analysis	8015B GRO LL		1	539460	A9VE	EET CAL 4	02/28/25 20:34
Total/NA	Prep	3510C			537151	TVD6	EET CAL 4	02/23/25 13:30
Total/NA	Analysis	8015B		1	537607	H6FE	EET CAL 4	02/24/25 22:33

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

## Lab Sample ID: 380-136977-4

Date Collected: 02/18/25 10:36

Matrix: Water

Date Received: 02/21/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	539460	A9VE	EET CAL 4	02/28/25 19:42

**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: 380-136977-1  
 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 renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

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

Job ID: 380-136977-1  
 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
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
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
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: 380-136977-1  
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: 380-136977-1  
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-136977-1	Ka'amilo Wells	Water	02/18/25 11:31	02/21/25 09:34
380-136977-2	TB: Ka'amilo Wells	Water	02/18/25 11:31	02/21/25 09:34
380-136977-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	02/18/25 10:36	02/21/25 09:34
380-136977-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Water	02/18/25 10:36	02/21/25 09:34

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**Chain of Custody Record**



<b>Client Information</b>		Lab P.M. Arada, Rachelle	Carrier Tracking No(s)	COC No: 380-28005-2757 1
Company: City & County of Honolulu		E-Mail: Rachelle.Arada@et.eurofins.com	State of Origin:	Page: Page 1 of 1
Address: 630 South Beretania Street Chemistry Lab		Job #:		
City: Honolulu		Analysis Requested		
State, Zip: HI, 96843		Preservation Codes: R - NaThioSO4 RA - NaThioHCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate		
Phone: 808-748-5840 (Tel)		Total Number of Containers		
Email: kiwamoto@hbws.org		Other		
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Special Instructions/Note:		
Site: Hawaii				

  

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Matrix (Water, Swab, Soil, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	R	RA	Q	OA	Y	I	Special Instructions/Note:
Ka'amilo Wells	18-Feb-2025	1131	G		Water			2	3	2	2			
Ka'amilo Wells (Matrix Spike)					Water									
Ka'amilo Wells (Matrix Spike Duplicate)					Water									
TB: Ka'amilo Wells	18-Feb-2025	1131			Water			2						
Aiea Gulch Wells Pump 2					Water									
Aiea Gulch Wells Pump 2 (Matrix Spike)					Water									
Aiea Gulch Wells Pump 2 (Matrix Spike Duplicate)					Water									
TB: Aiea Gulch Wells Pump 2	18-Feb-2025	1036			Water			2						380-136977 COC

  

<b>Possible Hazard Identification</b>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B
<input type="checkbox"/> Deliverable Requested I, II, III, IV	<input type="checkbox"/> Other (specify)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological
Empty Kit Relinquished by		Date:	
Relinquished by		Date/Time:	
Relinquished by		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.	

  

<b>Special Instructions/QC Requirements:</b>		Method of Shipment	
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		RED 5-017721 8241 7041	
Received by		Date/Time:	
Received by		Date/Time:	
Received by		Date/Time:	

  

<b>Special Instructions/QC Requirements:</b>		Method of Shipment	
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		RED 5-017721 8241 7041	
Received by		Date/Time:	
Received by		Date/Time:	
Received by		Date/Time:	





# Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-136977-1

SDG Number: Weekly

**Login Number: 136977**

**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.	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: 380-136977-1

SDG Number: Weekly

**Login Number: 136977**

**List Number: 2**

**Creator: Nguyen, Jenny**

**List Source: Eurofins Calscience**

**List Creation: 02/22/25 02:15 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	2.4
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?	False	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

