

# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 10/15/2025 4:07:36 PM

## JOB DESCRIPTION

RED-HILL  
Weekly: Moanalua Wells  
RUSH Weekly Red Hill

## JOB NUMBER

380-174174-1

# 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

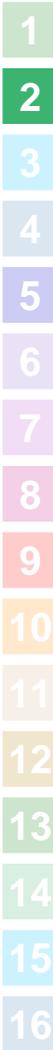
1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report 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



Authorized for release by  
Maria Lopez, Project Manager  
[Maria.Lopez@et.eurofinsus.com](mailto:Maria.Lopez@et.eurofinsus.com)  
(626)386-1100

Generated  
10/15/2025 4:07:36 PM



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	7
Action Limit Summary . . . . .	11
Surrogate Summary . . . . .	12
QC Sample Results . . . . .	15
QC Association Summary . . . . .	31
Lab Chronicle . . . . .	33
Certification Summary . . . . .	34
Method Summary . . . . .	36
Sample Summary . . . . .	37
Chain of Custody . . . . .	38
Receipt Checklists . . . . .	40

# Definitions/Glossary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD 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.

### GC VOA

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

## Glossary

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

# Case Narrative

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

Job ID: 380-174174-1

**Job ID: 380-174174-1**

**Eurofins Eaton Analytical Pomona**

## **Job Narrative 380-174174-1**

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### **Receipt**

The samples were received on 10/1/2025 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.6°C, 1.7°C, 2.4°C, 4.7°C, 4.9°C and 5.2°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: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.018		0.0098	ug/L	1		525.2	Total/NA

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

**Lab Sample ID: 380-174174-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# Client Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2,4'-DDD	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2,4'-DDE	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2,4'-DDT	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
2-Methylnaphthalene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
4,4'-DDD	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
4,4'-DDE	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
4,4'-DDT	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Acenaphthene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Acenaphthylene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Acetochlor	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Alachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
alpha-BHC	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
alpha-Chlordane	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Anthracene	<0.020		0.020	ug/L		10/02/25 09:05	10/03/25 16:57	1
Atrazine	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Benz(a)anthracene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Benzo[a]pyrene	<0.020		0.020	ug/L		10/02/25 09:05	10/03/25 16:57	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		10/02/25 09:05	10/03/25 16:57	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		10/02/25 09:05	10/03/25 16:57	1
beta-BHC	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		10/02/25 09:05	10/03/25 16:57	1
Bromacil	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Butachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Butylbenzylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 16:57	1
Chlorobenzilate	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Chloroneb	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Chlorpyrifos	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Chrysene	<0.020		0.020	ug/L		10/02/25 09:05	10/03/25 16:57	1
delta-BHC	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		10/02/25 09:05	10/03/25 16:57	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
<b>Dieldrin</b>	<b>0.018</b>		0.0098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Diethylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 16:57	1
Dimethylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 16:57	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		10/02/25 09:05	10/03/25 16:57	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Endosulfan sulfate	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Endrin	<0.0098		0.0098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Endrin aldehyde	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
EPTC	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Fluoranthene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
gamma-Chlordane	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Heptachlor	<0.0098		0.0098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Hexachlorobenzene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Isophorone	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Lindane	<0.0098		0.0098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Malathion	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Methoxychlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Metolachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Molinate	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Naphthalene	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Parathion	<0.098	*+	0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Phenanthrene	<0.039		0.039	ug/L		10/02/25 09:05	10/03/25 16:57	1
Propachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Pyrene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Simazine	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Terbacil	<0.098	*+	0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Terbutylazine	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Thiobencarb	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		10/02/25 09:05	10/03/25 16:57	1
trans-Nonachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 16:57	1
Trifluralin	<0.098		0.098	ug/L		10/02/25 09:05	10/03/25 16:57	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/02/25 09:05	10/03/25 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	102		70 - 130	10/02/25 09:05	10/03/25 16:57	1
Perylene-d12	93		70 - 130	10/02/25 09:05	10/03/25 16:57	1
Triphenylphosphate	108		70 - 130	10/02/25 09:05	10/03/25 16:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
2-Methylnaphthalene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Acenaphthene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Acenaphthylene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Anthracene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Benzo[a]anthracene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Benzo[a]pyrene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Chrysene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Fluoranthene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Naphthalene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Phenanthrene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1
Pyrene	<0.19		0.19	ug/L		10/02/25 05:00	10/08/25 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		28 - 127	10/02/25 05:00	10/08/25 22:08	1
2-Fluorobiphenyl (Surr)	74		31 - 120	10/02/25 05:00	10/08/25 22:08	1
2-Fluorophenol (Surr)	36		17 - 120	10/02/25 05:00	10/08/25 22:08	1
Nitrobenzene-d5 (Surr)	69		27 - 120	10/02/25 05:00	10/08/25 22:08	1
Phenol-d6 (Surr)	24		10 - 120	10/02/25 05:00	10/08/25 22:08	1
p-Terphenyl-d14 (Surr)	81		45 - 120	10/02/25 05:00	10/08/25 22:08	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/02/25 05:00	10/09/25 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		33 - 139	10/02/25 05:00	10/09/25 17:16	1
2-Fluorobiphenyl (Surr)	80		33 - 126	10/02/25 05:00	10/09/25 17:16	1
2-Fluorophenol (Surr)	40		12 - 120	10/02/25 05:00	10/09/25 17:16	1
Nitrobenzene-d5 (Surr)	92		36 - 120	10/02/25 05:00	10/09/25 17:16	1
Phenol-d6 (Surr)	26		10 - 120	10/02/25 05:00	10/09/25 17:16	1
p-Terphenyl-d14 (Surr)	92		47 - 131	10/02/25 05:00	10/09/25 17:16	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			10/07/25 14:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134		10/07/25 14:09	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		10/02/25 09:53	10/12/25 20:14	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/02/25 09:53	10/12/25 20:14	1
C8-C18	<25		25	ug/L		10/02/25 09:53	10/12/25 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	127		60 - 130	10/02/25 09:53	10/12/25 20:14	1

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

**Lab Sample ID: 380-174174-2**

Date Collected: 09/29/25 09:38

Matrix: Water

Date Received: 10/01/25 10:00

**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			10/07/25 18:46	1

# Client Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-2**

**Date Collected: 09/29/25 09:38**

**Matrix: Water**

**Date Received: 10/01/25 10:00**

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	96		38 - 134		10/07/25 18:46	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# Action Limit Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

## Compliance Check

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

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

# Surrogate Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

## 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)
380-174174-1	MOANALUA WELLS (331-223-T)	102	93	108

**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)
380-173355-AS-1-A MS	Matrix Spike	103	95	110
380-173586-AS-1-A DU	Duplicate	102	90	108
LCS 380-177502/22-A	Lab Control Sample	99	95	111
MB 380-177502/20-A	Method Blank	101	88	108
MRL 380-177502/21-A	Lab Control Sample	102	89	108

**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)
380-174174-1	MOANALUA WELLS (331-223-T)	91	80	40	92	26	92

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

## Method: 625.1 - 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)
MB 570-634277/1-A	Method Blank	93	89	52	115	35	93

**Surrogate Legend**  
 TBP = 2,4,6-Tribromophenol (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)

# Surrogate Summary

Client: City & County of Honolulu

Job ID: 380-174174-1

Project/Site: RED-HILL

SDG: Weekly: Moanalua Wells

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)
380-174174-1	MOANALUA WELLS (331-223-T	83	74	36	69	24	81

### 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)
380-174167-A-1-A MS	Matrix Spike	70	73	48	67	31	70
380-174167-A-1-B MSD	Matrix Spike Duplicate	81	84	53	73	35	83
LCS 570-634277/2-A	Lab Control Sample	89	86	60	79	40	86
LCSD 570-634277/3-A	Lab Control Sample Dup	86	83	58	76	39	85
MB 570-634277/1-A	Method Blank	82	74	46	84	29	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)
380-174174-1	MOANALUA WELLS (331-223-T	98

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-173600-B-1 MS	Matrix Spike	95
380-173600-B-1 MSD	Matrix Spike Duplicate	99
380-174174-2	TB:MOANALUA WELLS (331-223-TP202)	96

Eurofins Eaton Analytical Pomona

# Surrogate Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
LCS 570-636604/4	Lab Control Sample	95
LCSD 570-636604/5	Lab Control Sample Dup	97
MB 570-636604/6	Method Blank	94
MRL 570-636604/3	Lab Control Sample	93

#### 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)
380-174174-1	MOANALUA WELLS (331-223-1	127

#### 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)
380-174167-B-1-A MS	Matrix Spike	104
380-174167-B-1-B MSD	Matrix Spike Duplicate	111
LCS 570-634521/2-A	Lab Control Sample	110
LCSD 570-634521/3-A	Lab Control Sample Dup	107
MB 570-634521/1-A	Method Blank	114
MRL 570-634521/4-A	Lab Control Sample	110

#### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-174174-1  
 SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MB 380-177502/20-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2,4'-DDD	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2,4'-DDE	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2,4'-DDT	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
2-Methylnaphthalene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
4,4'-DDD	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
4,4'-DDE	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
4,4'-DDT	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Acenaphthene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Acenaphthylene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Acetochlor	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Alachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
alpha-BHC	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
alpha-Chlordane	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Anthracene	<0.019		0.019	ug/L		10/02/25 09:05	10/03/25 13:55	1
Atrazine	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Benz(a)anthracene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Benzo[a]pyrene	<0.019		0.019	ug/L		10/02/25 09:05	10/03/25 13:55	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		10/02/25 09:05	10/03/25 13:55	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		10/02/25 09:05	10/03/25 13:55	1
beta-BHC	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		10/02/25 09:05	10/03/25 13:55	1
Bromacil	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Butachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Butylbenzylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 13:55	1
Chlorobenzilate	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Chloroneb	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Chlorpyrifos	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Chrysene	<0.019		0.019	ug/L		10/02/25 09:05	10/03/25 13:55	1
delta-BHC	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		10/02/25 09:05	10/03/25 13:55	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Dieldrin	<0.0097		0.0097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Diethylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 13:55	1
Dimethylphthalate	<0.49		0.49	ug/L		10/02/25 09:05	10/03/25 13:55	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		10/02/25 09:05	10/03/25 13:55	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Endosulfan sulfate	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Endrin	<0.0097		0.0097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Endrin aldehyde	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
EPTC	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MB 380-177502/20-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Fluorene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
gamma-Chlordane	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Heptachlor	<0.0097		0.0097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Hexachlorobenzene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Isophorone	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Lindane	<0.0097		0.0097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Malathion	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Methoxychlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Metolachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Molinate	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Naphthalene	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Parathion	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Phenanthrene	<0.039		0.039	ug/L		10/02/25 09:05	10/03/25 13:55	1
Propachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Pyrene	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Simazine	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Terbacil	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Terbutylazine	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Thiobencarb	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		10/02/25 09:05	10/03/25 13:55	1
trans-Nonachlor	<0.049		0.049	ug/L		10/02/25 09:05	10/03/25 13:55	1
Trifluralin	<0.097		0.097	ug/L		10/02/25 09:05	10/03/25 13:55	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Plumbane, diethyldimethyl-	0.508	T J N	ug/L		3.29	1762-27-2	10/02/25 09:05	10/03/25 13:55	1
Cyclohexasiloxane, dodecamethyl-	1.17	T J N	ug/L		3.90	540-97-6	10/02/25 09:05	10/03/25 13:55	1
Hexadecanamide	0.498	T J N	ug/L		7.04	629-54-9	10/02/25 09:05	10/03/25 13:55	1
9-Octadecenamide, (Z)-	7.09	T J N	ug/L		7.90	301-02-0	10/02/25 09:05	10/03/25 13:55	1
9-Octadecenamide, (Z)-	0.752	T J N	ug/L		8.00	301-02-0	10/02/25 09:05	10/03/25 13:55	1
13-Docosenamide, (Z)-	3.31	T J N	ug/L		10.42	112-84-5	10/02/25 09:05	10/03/25 13:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	10/02/25 09:05	10/03/25 13:55	1
Perylene-d12	88		70 - 130	10/02/25 09:05	10/03/25 13:55	1
Triphenylphosphate	108		70 - 130	10/02/25 09:05	10/03/25 13:55	1

**Lab Sample ID: LCS 380-177502/22-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.84		ug/L		95	70 - 130
2,4'-DDD	1.95	2.04		ug/L		104	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: LCS 380-177502/22-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDE	1.95	2.03		ug/L		104	70 - 130
2,4'-DDT	1.95	2.22		ug/L		114	70 - 130
2,4-Dinitrotoluene	1.95	2.35		ug/L		120	70 - 130
2,6-Dinitrotoluene	1.95	2.28		ug/L		117	70 - 130
2-Methylnaphthalene	1.95	1.86		ug/L		96	70 - 130
4,4'-DDD	1.95	2.07		ug/L		106	70 - 130
4,4'-DDE	1.95	2.17		ug/L		112	70 - 130
4,4'-DDT	1.95	2.13		ug/L		109	70 - 130
Acenaphthene	1.95	1.87		ug/L		96	70 - 130
Acenaphthylene	1.95	1.89		ug/L		97	70 - 130
Acetochlor	1.95	2.23		ug/L		114	70 - 130
Alachlor	1.95	2.18		ug/L		112	70 - 130
alpha-BHC	1.95	2.10		ug/L		108	70 - 130
alpha-Chlordane	1.95	1.99		ug/L		102	70 - 130
Anthracene	1.95	1.94		ug/L		99	70 - 130
Atrazine	1.95	2.28		ug/L		117	70 - 130
Benz(a)anthracene	1.95	1.99		ug/L		102	70 - 130
Benzo[a]pyrene	1.95	2.01		ug/L		103	70 - 130
Benzo[b]fluoranthene	1.95	1.97		ug/L		101	70 - 130
Benzo[g,h,i]perylene	1.95	1.94		ug/L		100	70 - 130
Benzo[k]fluoranthene	1.95	2.05		ug/L		105	70 - 130
beta-BHC	1.95	2.14		ug/L		110	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.87		ug/L		96	70 - 130
Bromacil	1.95	2.41		ug/L		124	70 - 130
Butachlor	1.95	2.19		ug/L		112	70 - 130
Butylbenzylphthalate	1.95	2.25		ug/L		116	70 - 130
Chlorobenzilate	1.95	2.36		ug/L		121	70 - 130
Chloroneb	1.95	1.91		ug/L		98	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.11		ug/L		108	70 - 130
Chlorpyrifos	1.95	2.28		ug/L		117	70 - 130
Chrysene	1.95	1.87		ug/L		96	70 - 130
delta-BHC	1.95	2.05		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.24		ug/L		115	70 - 130
Dibenz(a,h)anthracene	1.95	1.95		ug/L		100	70 - 130
Diclorvos (DDVP)	1.95	2.19		ug/L		112	70 - 130
Dieldrin	1.95	1.87		ug/L		96	70 - 130
Diethylphthalate	1.95	2.15		ug/L		111	70 - 130
Dimethylphthalate	1.95	2.10		ug/L		108	70 - 130
Di-n-butyl phthalate	3.90	4.70		ug/L		121	70 - 130
Di-n-octyl phthalate	1.95	1.93		ug/L		99	70 - 130
Endosulfan I (Alpha)	1.95	1.89		ug/L		97	70 - 130
Endosulfan II (Beta)	1.95	2.01		ug/L		103	70 - 130
Endosulfan sulfate	1.95	2.05		ug/L		105	70 - 130
Endrin	1.95	2.31		ug/L		118	70 - 130
Endrin aldehyde	1.95	1.89		ug/L		97	60 - 130
EPTC	1.95	2.03		ug/L		104	70 - 130
Fluoranthene	1.95	2.09		ug/L		107	70 - 130
Fluorene	1.95	1.99		ug/L		102	70 - 130
gamma-Chlordane	1.95	2.01		ug/L		103	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: LCS 380-177502/22-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	1.95	2.25		ug/L		116	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.22		ug/L		114	70 - 130
Hexachlorobenzene	1.95	2.09		ug/L		107	70 - 130
Hexachlorocyclopentadiene	1.95	2.09		ug/L		107	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.03		ug/L		104	70 - 130
Isophorone	1.95	2.02		ug/L		104	70 - 130
Lindane	1.95	2.07		ug/L		106	70 - 130
Malathion	1.95	2.23		ug/L		114	70 - 130
Methoxychlor	1.95	2.17		ug/L		111	70 - 130
Metolachlor	1.95	2.22		ug/L		114	70 - 130
Molinate	1.95	2.10		ug/L		108	70 - 130
Naphthalene	1.95	1.87		ug/L		96	70 - 130
Parathion	1.95	2.59	*+	ug/L		133	70 - 130
Pendimethalin (Penoxaline)	1.95	2.13		ug/L		109	70 - 130
Phenanthrene	1.95	1.76		ug/L		90	70 - 130
Propachlor	1.95	2.33		ug/L		120	70 - 130
Pyrene	1.95	2.07		ug/L		106	70 - 130
Simazine	1.95	2.31		ug/L		119	70 - 130
Terbacil	1.95	2.65	*+	ug/L		136	70 - 130
Terbutylazine	1.95	2.24		ug/L		115	70 - 130
Thiobencarb	1.95	2.20		ug/L		113	70 - 130
trans-Nonachlor	1.95	1.90		ug/L		98	70 - 130
Trifluralin	1.95	2.05		ug/L		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	111		70 - 130

**Lab Sample ID: MRL 380-177502/21-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0976	0.107		ug/L		110	50 - 150
2,4'-DDD	0.0976	0.0852	J	ug/L		87	50 - 150
2,4'-DDE	0.0976	0.0939	J	ug/L		96	50 - 150
2,4'-DDT	0.0976	0.0975	J	ug/L		100	50 - 150
2,4-Dinitrotoluene	0.0976	0.113		ug/L		115	50 - 150
2,6-Dinitrotoluene	0.0976	0.134		ug/L		137	50 - 150
2-Methylnaphthalene	0.0976	0.103		ug/L		106	50 - 150
4,4'-DDD	0.0976	0.0981		ug/L		101	50 - 150
4,4'-DDE	0.0976	0.0824	J	ug/L		84	50 - 150
4,4'-DDT	0.0976	0.119		ug/L		122	50 - 150
Acenaphthene	0.0976	0.0964	J	ug/L		99	50 - 150
Acenaphthylene	0.0976	0.0865	J	ug/L		89	50 - 150
Acetochlor	0.0976	0.109		ug/L		111	50 - 150
Alachlor	0.0488	0.0534		ug/L		109	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MRL 380-177502/21-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
alpha-BHC	0.0976	0.0955	J	ug/L		98	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		100	50 - 150
Anthracene	0.0195	0.0191	J	ug/L		98	50 - 150
Atrazine	0.0488	0.0518		ug/L		106	50 - 150
Benz(a)anthracene	0.0488	0.0558		ug/L		114	50 - 150
Benzo[a]pyrene	0.0195	0.0159	J	ug/L		81	50 - 150
Benzo[b]fluoranthene	0.0195	0.0186	J	ug/L		95	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0352	J	ug/L		72	50 - 150
Benzo[k]fluoranthene	0.0195	0.0185	J	ug/L		95	50 - 150
beta-BHC	0.0976	0.109		ug/L		112	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.583	J	ug/L		100	50 - 150
Bromacil	0.0976	0.137		ug/L		140	50 - 150
Butachlor	0.0488	0.0607		ug/L		124	50 - 150
Butylbenzylphthalate	0.488	0.559		ug/L		115	50 - 150
Chlorobenzilate	0.0976	0.131		ug/L		135	50 - 150
Chloroneb	0.0976	0.100		ug/L		103	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0976	0.0850	J	ug/L		87	50 - 150
Chlorpyrifos	0.0488	0.0543		ug/L		111	50 - 150
Chrysene	0.0195	0.0202		ug/L		104	50 - 150
delta-BHC	0.0976	0.0970	J	ug/L		99	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.671		ug/L		115	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0359	J	ug/L		74	50 - 150
Diclorvos (DDVP)	0.0488	0.0638		ug/L		131	50 - 150
Dieldrin	0.00976	0.0108		ug/L		111	50 - 150
Diethylphthalate	0.488	0.518		ug/L		106	50 - 150
Dimethylphthalate	0.488	0.494		ug/L		101	50 - 150
Di-n-butyl phthalate	0.488	0.744	J	ug/L		152	49 - 243
Di-n-octyl phthalate	0.0976	0.108		ug/L		110	50 - 150
Endosulfan I (Alpha)	0.0976	0.0878	J	ug/L		90	50 - 150
Endosulfan II (Beta)	0.0976	0.0956	J	ug/L		98	50 - 150
Endosulfan sulfate	0.0976	0.0926	J	ug/L		95	50 - 150
Endrin	0.00976	0.0129		ug/L		132	50 - 150
Endrin aldehyde	0.0976	0.105		ug/L		107	50 - 150
EPTC	0.0976	0.0960	J	ug/L		98	50 - 150
Fluoranthene	0.0976	0.0978	J	ug/L		100	50 - 150
Fluorene	0.0488	<0.049		ug/L		100	50 - 150
gamma-Chlordane	0.0244	0.0236	J	ug/L		97	50 - 150
Heptachlor	0.00976	0.0130		ug/L		133	50 - 150
Heptachlor epoxide (isomer B)	0.00976	0.0103		ug/L		106	50 - 150
Hexachlorobenzene	0.0488	0.0433	J	ug/L		89	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0474	J	ug/L		97	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0370	J	ug/L		76	50 - 150
Isophorone	0.0976	0.114		ug/L		117	50 - 150
Lindane	0.00976	0.0104		ug/L		107	50 - 150
Malathion	0.0976	0.120		ug/L		123	50 - 150
Methoxychlor	0.0488	0.0642		ug/L		132	50 - 150
Metolachlor	0.0488	0.0565		ug/L		116	50 - 150
Molinate	0.0976	0.103		ug/L		105	50 - 150
Naphthalene	0.0976	0.108		ug/L		111	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MRL 380-177502/21-A**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Parathion	0.0976	0.109		ug/L		112	50 - 150
Pendimethalin (Penoxaline)	0.0976	0.0977	J	ug/L		100	50 - 150
Phenanthrene	0.0390	0.0406		ug/L		104	50 - 150
Propachlor	0.0488	0.0558		ug/L		114	50 - 150
Pyrene	0.0488	0.0492		ug/L		101	50 - 150
Simazine	0.0488	0.0484	J	ug/L		99	50 - 150
Terbacil	0.0976	0.134		ug/L		138	50 - 150
Terbutylazine	0.0976	0.110		ug/L		113	50 - 150
Thiobencarb	0.0976	0.103		ug/L		105	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		101	50 - 150
Trifluralin	0.0976	0.0976	J	ug/L		100	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	102		70 - 130
Perylene-d12	89		70 - 130
Triphenylphosphate	108		70 - 130

**Lab Sample ID: 380-173355-AS-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.94	1.86		ug/L		95	70 - 130
2,4'-DDD	<0.097		1.94	2.03		ug/L		104	70 - 130
2,4'-DDE	<0.097		1.94	2.02		ug/L		104	70 - 130
2,4'-DDT	<0.097		1.94	2.22		ug/L		114	70 - 130
2,4-Dinitrotoluene	<0.097	F1	1.94	2.60	F1	ug/L		134	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	2.44		ug/L		126	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.91		ug/L		98	70 - 130
4,4'-DDD	<0.097		1.94	2.07		ug/L		106	70 - 130
4,4'-DDE	<0.097		1.94	2.17		ug/L		112	70 - 130
4,4'-DDT	<0.097		1.94	2.11		ug/L		109	70 - 130
Acenaphthene	<0.097		1.94	1.90		ug/L		98	70 - 130
Acenaphthylene	<0.097		1.94	1.95		ug/L		100	70 - 130
Acetochlor	<0.097		1.94	2.23		ug/L		115	70 - 130
Alachlor	<0.048		1.94	2.20		ug/L		113	70 - 130
alpha-BHC	<0.097		1.94	2.08		ug/L		107	70 - 130
alpha-Chlordane	<0.048		1.94	1.99		ug/L		102	70 - 130
Anthracene	<0.019		1.94	1.35		ug/L		70	70 - 130
Atrazine	0.17		1.94	2.37		ug/L		113	70 - 130
Benz(a)anthracene	<0.048		1.94	1.82		ug/L		93	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.74		ug/L		90	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.02		ug/L		104	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	1.95		ug/L		101	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	1.99		ug/L		103	70 - 130
beta-BHC	<0.097		1.94	2.09		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.94		ug/L		100	70 - 130
Bromacil	<0.097		1.94	2.41		ug/L		124	70 - 130

# QC Sample Results

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

Job ID: 380-174174-1  
 SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-173355-AS-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Butachlor	<0.048		1.94	2.19		ug/L		113	70 - 130
Butylbenzylphthalate	<0.48		1.94	2.22		ug/L		114	70 - 130
Chlorobenzilate	<0.097		1.94	2.43		ug/L		125	70 - 130
Chloroneb	<0.097		1.94	1.92		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.12		ug/L		109	70 - 130
Chlorpyrifos	<0.048		1.94	2.32		ug/L		119	70 - 130
Chrysene	<0.019		1.94	1.85		ug/L		95	70 - 130
delta-BHC	<0.097		1.94	2.00		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.14		ug/L		110	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	1.90		ug/L		98	70 - 130
Diclorvos (DDVP)	<0.048		1.94	2.31		ug/L		119	70 - 130
Dieldrin	<0.0097		1.94	1.84		ug/L		95	70 - 130
Diethylphthalate	<0.48		1.94	2.24		ug/L		115	70 - 130
Dimethylphthalate	<0.48		1.94	2.16		ug/L		111	70 - 130
Di-n-butyl phthalate	<0.97		3.89	4.58		ug/L		111	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.97		ug/L		102	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.86		ug/L		96	70 - 130
Endosulfan II (Beta)	<0.097		1.94	1.97		ug/L		101	70 - 130
Endosulfan sulfate	<0.097		1.94	2.03		ug/L		104	70 - 130
Endrin	<0.0097		1.94	2.26		ug/L		116	70 - 130
Endrin aldehyde	<0.097		1.94	1.66		ug/L		85	60 - 130
EPTC	<0.097		1.94	2.09		ug/L		108	70 - 130
Fluoranthene	<0.097		1.94	2.09		ug/L		108	70 - 130
Fluorene	<0.048		1.94	2.04		ug/L		105	70 - 130
gamma-Chlordane	<0.048		1.94	2.00		ug/L		103	70 - 130
Heptachlor	<0.0097	^+	1.94	2.33		ug/L		120	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.21		ug/L		114	70 - 130
Hexachlorobenzene	<0.048		1.94	2.09		ug/L		107	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	2.23		ug/L		114	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	2.08		ug/L		107	70 - 130
Isophorone	<0.097		1.94	2.09		ug/L		108	70 - 130
Lindane	<0.0097		1.94	2.06		ug/L		106	70 - 130
Malathion	<0.097		1.94	2.18		ug/L		112	70 - 130
Methoxychlor	<0.048		1.94	2.31		ug/L		119	70 - 130
Metolachlor	<0.048		1.94	2.21		ug/L		111	70 - 130
Molinate	<0.097		1.94	2.17		ug/L		112	70 - 130
Naphthalene	<0.097		1.94	1.90		ug/L		98	70 - 130
Parathion	<0.097	F1 ^+ *+	1.94	2.63	F1	ug/L		135	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	2.32		ug/L		119	70 - 130
Phenanthrene	<0.039		1.94	1.75		ug/L		90	70 - 130
Propachlor	<0.048		1.94	2.39		ug/L		123	70 - 130
Pyrene	<0.048		1.94	2.05		ug/L		106	70 - 130
Simazine	<0.048		1.94	2.17		ug/L		112	70 - 130
Terbacil	<0.097	F1 ^+ *+	1.94	2.58	F1	ug/L		133	70 - 130
Terbutylazine	<0.097		1.94	2.17		ug/L		112	70 - 130
Thiobencarb	<0.097		1.94	2.21		ug/L		114	70 - 130
trans-Nonachlor	<0.048		1.94	1.85		ug/L		95	70 - 130
Trifluralin	<0.097		1.94	2.26		ug/L		116	70 - 130

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-173355-AS-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	103		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	110		70 - 130

**Lab Sample ID: 380-173586-AS-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

<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	<0.096		<0.097		ug/L		NC	20
2,4'-DDD	<0.096		<0.097		ug/L		NC	20
2,4'-DDE	<0.096		<0.097		ug/L		NC	20
2,4'-DDT	<0.096		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.096		<0.097		ug/L		NC	20
4,4'-DDD	<0.096		<0.097		ug/L		NC	20
4,4'-DDE	<0.096		<0.097		ug/L		NC	20
4,4'-DDT	<0.096		<0.097		ug/L		NC	20
Acenaphthene	<0.096		<0.097		ug/L		NC	20
Acenaphthylene	<0.096		<0.097		ug/L		NC	20
Acetochlor	<0.096		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.096		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.096		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.096		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.096		<0.097		ug/L		NC	20
Chloroneb	<0.096		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.096		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.096		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0096		<0.0097		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-173586-AS-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 177810**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 177502**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.96		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.096		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.096		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.096		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.096		<0.097		ug/L		NC	20
Endrin	<0.0096		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.096		<0.097		ug/L		NC	20
EPTC	<0.096		<0.097		ug/L		NC	20
Fluoranthene	<0.096		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0096	^+	<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0096		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.096		<0.097		ug/L		NC	20
Lindane	<0.0096		<0.0097		ug/L		NC	20
Malathion	<0.096		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.096		<0.097		ug/L		NC	20
Naphthalene	<0.096		<0.097		ug/L		NC	20
Parathion	<0.096	^+ *+	<0.097	*+	ug/L		NC	20
Pendimethalin (Penoxaline)	<0.096		<0.097		ug/L		NC	20
Phenanthrene	<0.038		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.096	^+ *+	<0.097	*+	ug/L		NC	20
Terbutylazine	<0.096		<0.097		ug/L		NC	20
Thiobencarb	<0.096		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.096		<0.097		ug/L		NC	20

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	102		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	108		70 - 130

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MB 570-634277/1-A**  
**Matrix: Water**  
**Analysis Batch: 637854**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

<i>Tentatively Identified Compound</i>	<i>MB</i>	<i>MB</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>	None		ug/L			N/A	10/02/25 05:00	10/09/25 10:11	1

<i>Surrogate</i>	<i>MB</i>	<i>MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
<i>2,4,6-Tribromophenol (Surr)</i>	93		33 - 139	10/02/25 05:00	10/09/25 10:11	1
<i>2-Fluorobiphenyl (Surr)</i>	89		33 - 126	10/02/25 05:00	10/09/25 10:11	1
<i>2-Fluorophenol (Surr)</i>	52		12 - 120	10/02/25 05:00	10/09/25 10:11	1
<i>Nitrobenzene-d5 (Surr)</i>	115		36 - 120	10/02/25 05:00	10/09/25 10:11	1
<i>Phenol-d6 (Surr)</i>	35		10 - 120	10/02/25 05:00	10/09/25 10:11	1
<i>p-Terphenyl-d14 (Surr)</i>	93		47 - 131	10/02/25 05:00	10/09/25 10:11	1

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

**Lab Sample ID: MB 570-634277/1-A**  
**Matrix: Water**  
**Analysis Batch: 636543**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

<i>Analyte</i>	<i>MB</i>	<i>MB</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>						
<i>1-Methylnaphthalene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>2-Methylnaphthalene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Acenaphthene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Acenaphthylene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Anthracene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Benzo[a]anthracene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Benzo[a]pyrene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Benzo[b]fluoranthene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Benzo[g,h,i]perylene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Benzo[k]fluoranthene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Chrysene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Dibenz(a,h)anthracene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Fluoranthene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Fluorene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Indeno[1,2,3-cd]pyrene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Naphthalene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Phenanthrene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1
<i>Pyrene</i>	<0.20		0.20	ug/L		10/02/25 05:00	10/07/25 06:48	1

<i>Surrogate</i>	<i>MB</i>	<i>MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
<i>2,4,6-Tribromophenol (Surr)</i>	82		28 - 127	10/02/25 05:00	10/07/25 06:48	1
<i>2-Fluorobiphenyl (Surr)</i>	74		31 - 120	10/02/25 05:00	10/07/25 06:48	1
<i>2-Fluorophenol (Surr)</i>	46		17 - 120	10/02/25 05:00	10/07/25 06:48	1
<i>Nitrobenzene-d5 (Surr)</i>	84		27 - 120	10/02/25 05:00	10/07/25 06:48	1
<i>Phenol-d6 (Surr)</i>	29		10 - 120	10/02/25 05:00	10/07/25 06:48	1
<i>p-Terphenyl-d14 (Surr)</i>	75		45 - 120	10/02/25 05:00	10/07/25 06:48	1

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: LCS 570-634277/2-A**  
**Matrix: Water**  
**Analysis Batch: 636543**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	14.9		ug/L		75	47 - 120
2-Methylnaphthalene	20.0	14.6		ug/L		73	43 - 120
Acenaphthene	20.0	17.2		ug/L		86	60 - 132
Acenaphthylene	20.0	17.3		ug/L		86	54 - 126
Anthracene	20.0	16.8		ug/L		84	43 - 120
Benzo[a]anthracene	20.0	16.9		ug/L		84	42 - 133
Benzo[a]pyrene	20.0	17.0		ug/L		85	32 - 148
Benzo[b]fluoranthene	20.0	17.4		ug/L		87	42 - 140
Benzo[g,h,i]perylene	20.0	16.8		ug/L		84	1 - 195
Benzo[k]fluoranthene	20.0	16.9		ug/L		85	25 - 146
Chrysene	20.0	17.3		ug/L		86	44 - 140
Dibenz(a,h)anthracene	20.0	17.9		ug/L		89	1 - 200
Fluoranthene	20.0	18.4		ug/L		92	43 - 121
Fluorene	20.0	17.8		ug/L		89	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.4		ug/L		87	1 - 151
Naphthalene	20.0	14.2		ug/L		71	36 - 120
Phenanthrene	20.0	17.4		ug/L		87	65 - 120
Pyrene	20.0	17.5		ug/L		88	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		28 - 127
2-Fluorobiphenyl (Surr)	86		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	79		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	86		45 - 120

**Lab Sample ID: LCSD 570-634277/3-A**  
**Matrix: Water**  
**Analysis Batch: 636543**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.9		ug/L		74	47 - 120	0	20
2-Methylnaphthalene	20.0	14.6		ug/L		73	43 - 120	0	20
Acenaphthene	20.0	16.9		ug/L		85	60 - 132	2	29
Acenaphthylene	20.0	17.2		ug/L		86	54 - 126	0	45
Anthracene	20.0	16.6		ug/L		83	43 - 120	1	40
Benzo[a]anthracene	20.0	17.3		ug/L		87	42 - 133	3	32
Benzo[a]pyrene	20.0	17.6		ug/L		88	32 - 148	3	43
Benzo[b]fluoranthene	20.0	17.5		ug/L		87	42 - 140	0	43
Benzo[g,h,i]perylene	20.0	17.1		ug/L		85	1 - 195	1	61
Benzo[k]fluoranthene	20.0	17.6		ug/L		88	25 - 146	4	38
Chrysene	20.0	17.3		ug/L		87	44 - 140	0	53
Dibenz(a,h)anthracene	20.0	18.1		ug/L		91	1 - 200	1	75
Fluoranthene	20.0	18.2		ug/L		91	43 - 121	1	40
Fluorene	20.0	17.8		ug/L		89	70 - 120	0	23
Indeno[1,2,3-cd]pyrene	20.0	17.5		ug/L		87	1 - 151	0	60
Naphthalene	20.0	14.0		ug/L		70	36 - 120	2	39

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: LCSD 570-634277/3-A**  
**Matrix: Water**  
**Analysis Batch: 636543**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	17.1		ug/L		86	65 - 120	2	24
Pyrene	20.0	17.8		ug/L		89	70 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	86		28 - 127
2-Fluorobiphenyl (Surr)	83		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	76		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	85		45 - 120

**Lab Sample ID: 380-174167-A-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 637345**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 634277**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.5	12.7		ug/L		65	36 - 120
2-Methylnaphthalene	<0.19		19.5	12.5		ug/L		64	32 - 124
Acenaphthene	<0.19		19.5	14.5		ug/L		74	47 - 145
Acenaphthylene	<0.19		19.5	14.7		ug/L		75	33 - 145
Anthracene	<0.19		19.5	14.1		ug/L		72	27 - 133
Benzo[a]anthracene	<0.19		19.5	13.9		ug/L		71	33 - 143
Benzo[a]pyrene	<0.19		19.5	13.7		ug/L		70	17 - 163
Benzo[b]fluoranthene	<0.19		19.5	14.0		ug/L		72	24 - 159
Benzo[g,h,i]perylene	<0.19		19.5	13.6		ug/L		70	1 - 219
Benzo[k]fluoranthene	<0.19		19.5	13.6		ug/L		70	11 - 162
Chrysene	<0.19		19.5	14.1		ug/L		72	17 - 168
Dibenz(a,h)anthracene	<0.19		19.5	14.0		ug/L		72	1 - 227
Fluoranthene	<0.19		19.5	15.0		ug/L		77	26 - 137
Fluorene	<0.19		19.5	14.7		ug/L		75	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.5	13.7		ug/L		70	1 - 171
Naphthalene	<0.19		19.5	12.6		ug/L		65	21 - 133
Phenanthrene	<0.19		19.5	14.2		ug/L		73	54 - 120
Pyrene	<0.19		19.5	14.5		ug/L		74	52 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol (Surr)	70		28 - 127
2-Fluorobiphenyl (Surr)	73		31 - 120
2-Fluorophenol (Surr)	48		17 - 120
Nitrobenzene-d5 (Surr)	67		27 - 120
Phenol-d6 (Surr)	31		10 - 120
p-Terphenyl-d14 (Surr)	70		45 - 120

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174167-A-1-B MSD**

**Matrix: Water**

**Analysis Batch: 637345**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 634277**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.3	14.0		ug/L		72	36 - 120	10	30
2-Methylnaphthalene	<0.19		19.3	13.8		ug/L		72	32 - 124	10	30
Acenaphthene	<0.19		19.3	16.3		ug/L		84	47 - 145	12	48
Acenaphthylene	<0.19		19.3	16.3		ug/L		84	33 - 145	10	74
Anthracene	<0.19		19.3	15.6		ug/L		81	27 - 133	10	66
Benzo[a]anthracene	<0.19		19.3	15.8		ug/L		82	33 - 143	13	53
Benzo[a]pyrene	<0.19		19.3	15.5		ug/L		80	17 - 163	12	72
Benzo[b]fluoranthene	<0.19		19.3	15.8		ug/L		82	24 - 159	12	71
Benzo[g,h,i]perylene	<0.19		19.3	15.3		ug/L		79	1 - 219	12	97
Benzo[k]fluoranthene	<0.19		19.3	15.4		ug/L		80	11 - 162	12	63
Chrysene	<0.19		19.3	16.1		ug/L		83	17 - 168	13	87
Dibenz(a,h)anthracene	<0.19		19.3	16.2		ug/L		84	1 - 227	15	126
Fluoranthene	<0.19		19.3	16.9		ug/L		87	26 - 137	12	66
Fluorene	<0.19		19.3	16.4		ug/L		85	59 - 121	11	38
Indeno[1,2,3-cd]pyrene	<0.19		19.3	15.7		ug/L		81	1 - 171	14	99
Naphthalene	<0.19		19.3	13.4		ug/L		69	21 - 133	6	65
Phenanthrene	<0.19		19.3	16.3		ug/L		84	54 - 120	13	39
Pyrene	<0.19		19.3	16.9		ug/L		88	52 - 120	16	49

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	81		28 - 127
2-Fluorobiphenyl (Surr)	84		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	73		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	83		45 - 120

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

**Lab Sample ID: MB 570-636604/6**

**Matrix: Water**

**Analysis Batch: 636604**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			10/07/25 11:35	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134		10/07/25 11:35	1

**Lab Sample ID: LCS 570-636604/4**

**Matrix: Water**

**Analysis Batch: 636604**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (C4-C13)	400	414		ug/L		103	78 - 120

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: LCS 570-636604/4**  
**Matrix: Water**  
**Analysis Batch: 636604**

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

	LCS	LCS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	95		38 - 134

**Lab Sample ID: LCSD 570-636604/5**  
**Matrix: Water**  
**Analysis Batch: 636604**

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

<i>Analyte</i>	<i>Spike Added</i>	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
		<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>			
Gasoline Range Organics (C4-C13)	400	407		ug/L		102	78 - 120	2		10

	LCSD	LCSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	97		38 - 134

**Lab Sample ID: MRL 570-636604/3**  
**Matrix: Water**  
**Analysis Batch: 636604**

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

<i>Analyte</i>	<i>Spike Added</i>	MRL	MRL	Unit	D	%Rec	%Rec		
		<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>		
Gasoline Range Organics (C4-C13)	10.0	8.80	J	ug/L		88	50 - 150		

	MRL	MRL	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	93		38 - 134

**Lab Sample ID: 380-173600-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 636604**

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

<i>Analyte</i>	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>		
Gasoline Range Organics (C4-C13)	<10		400	390		ug/L		97	68 - 122		

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	95		38 - 134

**Lab Sample ID: 380-173600-B-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 636604**

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

<i>Analyte</i>	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>			
Gasoline Range Organics (C4-C13)	<10		400	389		ug/L		97	68 - 122	0		18

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

# QC Sample Results

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: MB 570-634521/1-A**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		10/02/25 09:52	10/12/25 15:57	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/02/25 09:52	10/12/25 15:57	1
C8-C18	<25		25	ug/L		10/02/25 09:52	10/12/25 15:57	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
<i>n-Octacosane (Surr)</i>	114		60 - 130			10/02/25 09:52	10/12/25 15:57	1

**Lab Sample ID: LCS 570-634521/2-A**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1780		ug/L		111	56 - 127
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	110		60 - 130				

**Lab Sample ID: LCSD 570-634521/3-A**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
C10-C28	1600	1710		ug/L		107	56 - 127	4	23
Surrogate	LCSD LCSD		Limits			%Rec			
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	107		60 - 130						

**Lab Sample ID: MRL 570-634521/4-A**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	0.0264		mg/L		132	50 - 150
Surrogate	MRL MRL		Limits			%Rec	
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	110		60 - 130				

**Lab Sample ID: 380-174167-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
C10-C28	<26		1630	1710		ug/L		105	70 - 130
Surrogate	MS MS		Limits					%Rec	
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	104		60 - 130						

# QC Sample Results

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

Job ID: 380-174174-1  
 SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174167-B-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 639272**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 634521**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1640	1770		ug/L		108	70 - 130	4	20
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>							
<i>n-Octacosane (Surr)</i>		111		60 - 130							

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# QC Association Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

## GC/MS Semi VOA

### Prep Batch: 177502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	
MB 380-177502/20-A	Method Blank	Total/NA	Water	525.2	
LCS 380-177502/22-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-177502/21-A	Lab Control Sample	Total/NA	Water	525.2	
380-173355-AS-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-173586-AS-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 177810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	177502
MB 380-177502/20-A	Method Blank	Total/NA	Water	525.2	177502
LCS 380-177502/22-A	Lab Control Sample	Total/NA	Water	525.2	177502
MRL 380-177502/21-A	Lab Control Sample	Total/NA	Water	525.2	177502
380-173355-AS-1-A MS	Matrix Spike	Total/NA	Water	525.2	177502
380-173586-AS-1-A DU	Duplicate	Total/NA	Water	525.2	177502

### Prep Batch: 634277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	625.1	
MB 570-634277/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-634277/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-634277/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-174167-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-174167-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Analysis Batch: 636543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-634277/1-A	Method Blank	Total/NA	Water	625.1 SIM	634277
LCS 570-634277/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	634277
LCSD 570-634277/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	634277

### Analysis Batch: 637345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	625.1 SIM	634277
380-174167-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	634277
380-174167-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	634277

### Analysis Batch: 637854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	625.1	634277
MB 570-634277/1-A	Method Blank	Total/NA	Water	625.1	634277

## GC VOA

### Analysis Batch: 636604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015B GRO LL	
380-174174-2	TB:MOANALUA WELLS (331-223-TP202)	Total/NA	Water	8015B GRO LL	
MB 570-636604/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-636604/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-636604/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-174174-1  
 SDG: Weekly: Moanalua Wells

## GC VOA (Continued)

### Analysis Batch: 636604 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 570-636604/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-173600-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-173600-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 634521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	3510C	
MB 570-634521/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-634521/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-634521/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-634521/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-174167-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-174167-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 639272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174174-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015B	634521
MB 570-634521/1-A	Method Blank	Total/NA	Water	8015B	634521
LCS 570-634521/2-A	Lab Control Sample	Total/NA	Water	8015B	634521
LCSD 570-634521/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	634521
MRL 570-634521/4-A	Lab Control Sample	Total/NA	Water	8015B	634521
380-174167-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	634521
380-174167-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	634521

# Lab Chronicle

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

Job ID: 380-174174-1  
 SDG: Weekly: Moanalua Wells

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

**Lab Sample ID: 380-174174-1**

**Date Collected: 09/29/25 09:38**

**Matrix: Drinking Water**

**Date Received: 10/01/25 10:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			177502	KRD3	EA POM	10/02/25 09:05
Total/NA	Analysis	525.2		1	177810	UPAC	EA POM	10/03/25 16:57
Total/NA	Prep	625.1			634277	S4EA	EET CAL 4	10/02/25 05:00
Total/NA	Analysis	625.1		1	637854	J7WE	EET CAL 4	10/09/25 17:16
Total/NA	Prep	625.1			634277	S4EA	EET CAL 4	10/02/25 05:00
Total/NA	Analysis	625.1 SIM		1	637345	PQS1	EET CAL 4	10/08/25 22:08
Total/NA	Analysis	8015B GRO LL		1	636604	YD9V	EET CAL 4	10/07/25 14:09
Total/NA	Prep	3510C			634521	TVD6	EET CAL 4	10/02/25 09:53
Total/NA	Analysis	8015B		1	639272	H6FE	EET CAL 4	10/12/25 20:14

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

**Lab Sample ID: 380-174174-2**

**Date Collected: 09/29/25 09:38**

**Matrix: Water**

**Date Received: 10/01/25 10:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	636604	YD9V	EET CAL 4	10/07/25 18:46

**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: 380-174174-1  
SDG: Weekly: Moanalua Wells

## 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	01-31-26
<p>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.</p>			
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

## 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
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25

Eurofins Eaton Analytical Pomona

# Accreditation/Certification Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

## Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
California	State	3082	10-14-25
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# Method Summary

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

Job ID: 380-174174-1  
SDG: Weekly: Moanalua Wells

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: 380-174174-1  
SDG: Weekly: Moanalua Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-174174-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	09/29/25 09:38	10/01/25 10:00	HI0000331
380-174174-2	TB:MOANALUA WELLS (331-223-TP202)	Water	09/29/25 09:38	10/01/25 10:00	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

**Chain of Custody Record**

<b>Client Information</b>		Sampler bailey	Lab Pk: Lopez, Maria	Carrier Tracking No(s): 380-28005-2757 1	COC No: 380-28005-2757 1
Client Contact Kirk Iwamoto		Phone: +1 808 748 5840	E-Mail: Maria.Lopez@et.eurofins.com	State of Origin:	Page: Page 1 of 1
Company City & County of Honolulu		PWSID:		Job #:	
Address: 630 South Beretania Street Chemistry Lab		Date Date Requested:		Preservation Codes: R - NaTheSO4 RA - NaThe/HCl Q - NaZSO3 QA - NaZSO3/HCl Y - Trizma I - NH4 Acetate	
City: Honolulu		TAT Requested (days):		Other	
State, Zip: HI, 96843		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Total Number of Containers	
Phone: 808-748-5840 (Tel)		PO #: C20525101 exp 05312023		Special Instructions/Note: pump 1	
Email: kiwamoto@hbws.org		WO #:		ⓐ 5.1-0.2 = 4.9	
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		ⓑ 4.9-0.2 = 4.7	
Site: Hawaii		SSOW#:		ⓒ 5.4-0.2 = 5.2	
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (In-water, Swab, On-surface, Air)
Moanalua Wells		29-Sep-2025	0938	G	Water
Moanalua Wells (Matrix Spike)					Water
Moanalua Wells (Matrix Spike Duplicate)					Water
TB: Moanalua Wells		29-Sep-2025	0938		Water
					1 8844 0970 2131
					2 8844 0970 2110
					3 8844 0970 2120
					4 8844 0970 2153
					5 8844 0970 2142
					6 8844 0970 2164



380-174174 COC

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Empty Kit Relinquished by** \_\_\_\_\_ Date: \_\_\_\_\_

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

**Special Instructions/QC Requirements:**

Received by	Date/Time	Company
SC-17	10/1/25	1000
Received by	Date/Time	Company
Received by	Date/Time	Company

Cooler Temperature(s) °C and Other Remarks:  
 ① 5.1-0.2 = 4.9 / ② 4.9-0.2 = 4.7 / ③ 5.4-0.2 = 5.2 / ④ 8844 0970 2131 / ⑤ 8844 0970 2110 / ⑥ 8844 0970 2120 / ⑦ 8844 0970 2153 / ⑧ 8844 0970 2142 / ⑨ 8844 0970 2164



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-174174-1  
SDG Number: Weekly: Moanalua Wells

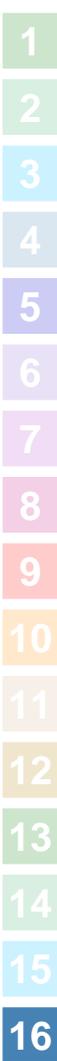
**Login Number: 174174**

**List Number: 1**

**Creator: Segura, Ryan**

**List Source: Eurofins Eaton Analytical Pomona**

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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: 380-174174-1  
SDG Number: Weekly: Moanalua Wells

**Login Number: 174174**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 10/01/25 06:54 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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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	

