

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

# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
630 South Beretania Street  
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Honolulu, Hawaii 96843

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## JOB DESCRIPTION

RED-HILL  
Weekly  
RUSH Weekly Red Hill

## JOB NUMBER

380-110669-1

# 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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# 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 . . . . .	43
Lab Chronicle . . . . .	45
Certification Summary . . . . .	46
Method Summary . . . . .	48
Sample Summary . . . . .	49
Chain of Custody . . . . .	50
Receipt Checklists . . . . .	52

# Definitions/Glossary

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

Job ID: 380-110669-1  
SDG: Weekly

## Qualifiers

### GC/MS Semi VOA

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

### GC/MS Semi VOA TICs

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

### GC Semi VOA

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

## Glossary

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

# Case Narrative

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

Job ID: 380-110669-1

**Job ID: 380-110669-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-110669-1

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 8/28/2024 9:54 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 2.8°C and 4.0°C.

### GC/MS Semi VOA

Method 625.1\_SIM: The following analyte(s) recovered outside control limits for the LCS associated with preparation batch 570-475857 and analytical batch 570-476195: Fluorene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 625.1\_SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 570-475857 and analytical batch 570-476731 were outside control limits: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-110669-1[MS]). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 525.2\_PREC: The laboratory control sample (LCS and LCSD) for preparation batch 380-106647 and analytical batch 380-106999 recovered failing low for Bromacil. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the analyte have been excluded from the report due to the results not acceptable for compliance reporting.

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.

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# Detection Summary

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.039		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.015		0.0097	ug/L	1		525.2	Total/NA

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

**Lab Sample ID: 380-110669-2**

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: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

**Date Collected: 08/26/24 10:13**

**Matrix: Drinking Water**

**Date Received: 08/28/24 09:54**

**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		08/29/24 14:50	08/30/24 17:51	1
2,4'-DDD	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
2,4'-DDE	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
2,4'-DDT	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
2-Methylnaphthalene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
4,4'-DDD	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
4,4'-DDE	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
4,4'-DDT	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Acenaphthene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Acenaphthylene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Acetochlor	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Alachlor	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
alpha-BHC	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
alpha-Chlordane	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Anthracene	<0.019		0.019	ug/L		08/29/24 14:50	08/30/24 17:51	1
Atrazine	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Benz(a)anthracene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/29/24 14:50	08/30/24 17:51	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/29/24 14:50	08/30/24 17:51	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/29/24 14:50	08/30/24 17:51	1
beta-BHC	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/29/24 14:50	08/30/24 17:51	1
Butachlor	<0.049	^3+	0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Butylbenzylphthalate	<0.49		0.49	ug/L		08/29/24 14:50	08/30/24 17:51	1
Chlorobenzilate	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Chloroneb	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Chlorpyrifos	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Chrysene	<0.019		0.019	ug/L		08/29/24 14:50	08/30/24 17:51	1
delta-BHC	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/29/24 14:50	08/30/24 17:51	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
<b>Dieldrin</b>	<b>0.039</b>		0.0097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Diethylphthalate	<0.49		0.49	ug/L		08/29/24 14:50	08/30/24 17:51	1
Dimethylphthalate	<0.49		0.49	ug/L		08/29/24 14:50	08/30/24 17:51	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		08/29/24 14:50	08/30/24 17:51	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Endosulfan sulfate	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Endrin	<0.0097		0.0097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Endrin aldehyde	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
EPTC	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Fluoranthene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1

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# Client Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

Date Collected: 08/26/24 10:13

Matrix: Drinking Water

Date Received: 08/28/24 09:54

**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		08/29/24 14:50	08/30/24 17:51	1
gamma-Chlordane	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Heptachlor	<0.0097		0.0097	ug/L		08/29/24 14:50	08/30/24 17:51	1
<b>Heptachlor epoxide (isomer B)</b>	<b>0.015</b>		0.0097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Hexachlorobenzene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Isophorone	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Lindane	<0.0097	^3+	0.0097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Malathion	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Methoxychlor	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Metolachlor	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Molinate	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Naphthalene	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Parathion	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Phenanthrene	<0.039		0.039	ug/L		08/29/24 14:50	08/30/24 17:51	1
Propachlor	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Pyrene	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Simazine	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Terbacil	<0.097		0.097	ug/L		09/04/24 10:00	09/05/24 16:25	1
Terbutylazine	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Thiobencarb	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/29/24 14:50	08/30/24 17:51	1
trans-Nonachlor	<0.049		0.049	ug/L		08/29/24 14:50	08/30/24 17:51	1
Trifluralin	<0.097		0.097	ug/L		08/29/24 14:50	08/30/24 17:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.5	T J N	ug/L		2.26	124-18-5	09/04/24 10:00	09/05/24 16:25	1
Plumbane, diethyldimethyl-	0.78	T J N	ug/L		2.53	1762-27-2	09/04/24 10:00	09/05/24 16:25	1
Tentatively Identified Compound	None		ug/L			N/A	08/29/24 14:50	08/30/24 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	08/29/24 14:50	08/30/24 17:51	1
2-Nitro-m-xylene	98		70 - 130	09/04/24 10:00	09/05/24 16:25	1
Perylene-d12	99		70 - 130	08/29/24 14:50	08/30/24 17:51	1
Perylene-d12	97		70 - 130	09/04/24 10:00	09/05/24 16:25	1
Triphenylphosphate	110		70 - 130	08/29/24 14:50	08/30/24 17:51	1
Triphenylphosphate	94		70 - 130	09/04/24 10:00	09/05/24 16:25	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		08/30/24 05:18	09/03/24 14:47	1
2-Methylnaphthalene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Acenaphthene	<0.19	*	0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Acenaphthylene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Anthracene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Benzo[a]anthracene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Benzo[a]pyrene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1

Eurofins Eaton Analytical Pomona



# Client Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

Date Collected: 08/26/24 10:13

Matrix: Drinking Water

Date Received: 08/28/24 09:54

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Chrysene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Fluoranthene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Fluorene	<0.19	F1 *-	0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Naphthalene	<0.19		0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Phenanthrene	<0.19	*-	0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1
Pyrene	<0.19	*-	0.19	ug/L		08/30/24 05:18	09/03/24 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		28 - 127	08/30/24 05:18	09/03/24 14:47	1
2-Fluorobiphenyl (Surr)	67		31 - 120	08/30/24 05:18	09/03/24 14:47	1
2-Fluorophenol (Surr)	44		17 - 120	08/30/24 05:18	09/03/24 14:47	1
Nitrobenzene-d5 (Surr)	67		27 - 120	08/30/24 05:18	09/03/24 14:47	1
Phenol-d6 (Surr)	29		10 - 120	08/30/24 05:18	09/03/24 14:47	1
p-Terphenyl-d14 (Surr)	76		45 - 120	08/30/24 05:18	09/03/24 14:47	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	08/30/24 05:18	09/09/24 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		33 - 139	08/30/24 05:18	09/09/24 14:23	1
2-Fluorobiphenyl (Surr)	84		33 - 126	08/30/24 05:18	09/09/24 14:23	1
2-Fluorophenol (Surr)	51		12 - 120	08/30/24 05:18	09/09/24 14:23	1
Nitrobenzene-d5 (Surr)	91		36 - 120	08/30/24 05:18	09/09/24 14:23	1
Phenol-d6 (Surr)	32		10 - 120	08/30/24 05:18	09/09/24 14:23	1
p-Terphenyl-d14 (Surr)	87		47 - 131	08/30/24 05:18	09/09/24 14:23	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			09/06/24 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134		09/06/24 18:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		08/30/24 16:57	09/12/24 17:16	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		08/30/24 16:57	09/12/24 17:16	1
C8-C18	<26		26	ug/L		08/30/24 16:57	09/12/24 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	92		60 - 130	08/30/24 16:57	09/12/24 17:16	1

# Client Sample Results

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

Job ID: 380-110669-1  
 SDG: Weekly

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

**Lab Sample ID: 380-110669-2**

**Date Collected: 08/26/24 10:13**

**Matrix: Water**

**Date Received: 08/28/24 09:54**

**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			09/06/24 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		38 - 134				09/06/24 19:22	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: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

## 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	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.015		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	^3+	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: 380-110669-1  
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)
380-110669-1	HALAWA WELLS UNITS 1 & 2 F	96	99	110
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	98	97	94

**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)
380-110542-AI-1-A MS	Matrix Spike	96	102	118
380-110544-H-1-A DU	Duplicate	97	97	114
380-110960-M-1-A MS	Matrix Spike	95	106	90
380-110973-L-1-A DU	Duplicate	97	97	87
LCS 380-105975/23-A	Lab Control Sample	96	102	119
LCS 380-106647/23-A	Lab Control Sample	99	94	100
LCSD 380-105975/24-A	Lab Control Sample Dup	97	102	118
LCSD 380-106647/24-A	Lab Control Sample Dup	98	105	100
MB 380-105975/21-A	Method Blank	96	98	111
MB 380-106647/21-A	Method Blank	100	97	94
MRL 380-105975/22-A	Lab Control Sample	96	99	114
MRL 380-106647/22-A	Lab Control Sample	102	103	101

**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)
380-110669-1	HALAWA WELLS UNITS 1 & 2 F	76	84	51	91	32	87

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

# Surrogate Summary

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

Job ID: 380-110669-1  
 SDG: Weekly

## 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 570-475857/1-A	Method Blank	75	73	54	82	32	87

### 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: 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)
380-110669-1	HALAWA WELLS UNITS 1 & 2 F	76	67	44	67	29	76
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	65	61	46	53	32	67
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	75	69	48	56	33	80

### 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)
LCS 570-475857/2-A	Lab Control Sample	75	63	53	53	35	74
LCS 570-475857/2-A	Lab Control Sample	74	66	58	58	39	73
LCSD 570-475857/3-A	Lab Control Sample Dup	77	65	53	54	35	75
LCSD 570-475857/3-A	Lab Control Sample Dup	76	69	58	59	40	74
MB 570-475857/1-A	Method Blank	71	61	47	62	29	74

### Surrogate Legend

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

# Surrogate Summary

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

Job ID: 380-110669-1  
SDG: Weekly

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

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-110669-1	HALAWA WELLS UNITS 1 & 2 F	85
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	95
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	94

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

## 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)
380-110669-2	TB: HALAWA WELLS UNITS 1&	88
LCS 570-478203/10	Lab Control Sample	88
LCSD 570-478203/12	Lab Control Sample Dup	83
MB 570-478203/11	Method Blank	76
MRL 570-478203/1003	Lab Control Sample	80

**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)
380-110669-1	HALAWA WELLS UNITS 1 & 2 F	92
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	93
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	89

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
LCS 570-476313/2-A	Lab Control Sample	89
LCSD 570-476313/3-A	Lab Control Sample Dup	91
MB 570-476313/1-A	Method Blank	86
MRL 570-476313/4-A	Lab Control Sample	91

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-105975/21-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2,4'-DDD	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2,4'-DDE	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2,4'-DDT	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
2-Methylnaphthalene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
4,4'-DDD	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
4,4'-DDE	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
4,4'-DDT	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Acenaphthene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Acenaphthylene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Acetochlor	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Alachlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
alpha-BHC	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
alpha-Chlordane	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Anthracene	<0.020		0.020	ug/L		08/29/24 13:15	08/30/24 14:57	1
Atrazine	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Benz(a)anthracene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Benzo[a]pyrene	<0.020		0.020	ug/L		08/29/24 13:15	08/30/24 14:57	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		08/29/24 13:15	08/30/24 14:57	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		08/29/24 13:15	08/30/24 14:57	1
beta-BHC	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		08/29/24 13:15	08/30/24 14:57	1
Butachlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Butylbenzylphthalate	<0.50		0.50	ug/L		08/29/24 13:15	08/30/24 14:57	1
Chlorobenzilate	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Chloroneb	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Chlorpyrifos	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Chrysene	<0.020		0.020	ug/L		08/29/24 13:15	08/30/24 14:57	1
delta-BHC	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		08/29/24 13:15	08/30/24 14:57	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Dieldrin	<0.0099		0.0099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Diethylphthalate	<0.50		0.50	ug/L		08/29/24 13:15	08/30/24 14:57	1
Dimethylphthalate	<0.50		0.50	ug/L		08/29/24 13:15	08/30/24 14:57	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		08/29/24 13:15	08/30/24 14:57	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Endosulfan sulfate	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Endrin	<0.0099		0.0099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Endrin aldehyde	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
EPTC	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Fluoranthene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1

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# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-105975/21-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
gamma-Chlordane	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Heptachlor	<0.0099		0.0099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Hexachlorobenzene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Isophorone	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Lindane	<0.0099		0.0099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Malathion	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Methoxychlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Metolachlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Molinate	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Naphthalene	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Parathion	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Phenanthrene	<0.040		0.040	ug/L		08/29/24 13:15	08/30/24 14:57	1
Propachlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Pyrene	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Simazine	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Terbacil	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Terbutylazine	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Thiobencarb	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		08/29/24 13:15	08/30/24 14:57	1
trans-Nonachlor	<0.050		0.050	ug/L		08/29/24 13:15	08/30/24 14:57	1
Trifluralin	<0.099		0.099	ug/L		08/29/24 13:15	08/30/24 14:57	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/29/24 13:15	08/30/24 14:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	08/29/24 13:15	08/30/24 14:57	1
Perylene-d12	98		70 - 130	08/29/24 13:15	08/30/24 14:57	1
Triphenylphosphate	111		70 - 130	08/29/24 13:15	08/30/24 14:57	1

**Lab Sample ID: LCS 380-105975/23-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.99	2.02		ug/L		101	70 - 130
2,4'-DDD	1.99	2.29		ug/L		115	70 - 130
2,4'-DDE	1.99	2.21		ug/L		111	70 - 130
2,4'-DDT	1.99	2.06		ug/L		104	70 - 130
2,4-Dinitrotoluene	1.99	1.77		ug/L		89	70 - 130
2,6-Dinitrotoluene	1.99	1.75		ug/L		88	70 - 130
2-Methylnaphthalene	1.99	2.03		ug/L		102	70 - 130
4,4'-DDD	1.99	2.09		ug/L		105	70 - 130

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# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCS 380-105975/23-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDE	1.99	2.40		ug/L		121	70 - 130
4,4'-DDT	1.99	2.05		ug/L		103	70 - 130
Acenaphthene	1.99	1.99		ug/L		100	70 - 130
Acenaphthylene	1.99	2.13		ug/L		107	70 - 130
Acetochlor	1.99	2.30		ug/L		116	70 - 130
Alachlor	1.99	2.32		ug/L		117	70 - 130
alpha-BHC	1.99	2.09		ug/L		105	70 - 130
alpha-Chlordane	1.99	2.26		ug/L		114	70 - 130
Anthracene	1.99	1.83		ug/L		92	70 - 130
Atrazine	1.99	2.08		ug/L		105	70 - 130
Benz(a)anthracene	1.99	2.22		ug/L		112	70 - 130
Benzo[a]pyrene	1.99	2.01		ug/L		101	70 - 130
Benzo[b]fluoranthene	1.99	2.22		ug/L		111	70 - 130
Benzo[g,h,i]perylene	1.99	2.07		ug/L		104	70 - 130
Benzo[k]fluoranthene	1.99	2.22		ug/L		111	70 - 130
beta-BHC	1.99	2.12		ug/L		107	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.87		ug/L		94	70 - 130
Butachlor	1.99	2.23		ug/L		112	70 - 130
Butylbenzylphthalate	1.99	2.29		ug/L		115	70 - 130
Chlorobenzilate	1.99	2.18		ug/L		110	70 - 130
Chloroneb	1.99	1.94		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.26		ug/L		114	70 - 130
Chlorpyrifos	1.99	2.06		ug/L		103	70 - 130
Chrysene	1.99	2.10		ug/L		105	70 - 130
delta-BHC	1.99	2.08		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.06		ug/L		104	70 - 130
Dibenz(a,h)anthracene	1.99	2.06		ug/L		103	70 - 130
Diclorvos (DDVP)	1.99	1.91		ug/L		96	70 - 130
Dieldrin	1.99	2.20		ug/L		111	70 - 130
Diethylphthalate	1.99	2.21		ug/L		111	70 - 130
Dimethylphthalate	1.99	2.08		ug/L		105	70 - 130
Di-n-butyl phthalate	3.98	4.22		ug/L		106	70 - 130
Di-n-octyl phthalate	1.99	1.77		ug/L		89	70 - 130
Endosulfan I (Alpha)	1.99	2.07		ug/L		104	70 - 130
Endosulfan II (Beta)	1.99	2.22		ug/L		112	70 - 130
Endosulfan sulfate	1.99	2.19		ug/L		110	70 - 130
Endrin	1.99	1.97		ug/L		99	70 - 130
Endrin aldehyde	1.99	2.21		ug/L		111	60 - 130
EPTC	1.99	2.14		ug/L		108	70 - 130
Fluoranthene	1.99	2.36		ug/L		119	70 - 130
Fluorene	1.99	2.14		ug/L		108	70 - 130
gamma-Chlordane	1.99	2.25		ug/L		113	70 - 130
Heptachlor	1.99	2.09		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.56		ug/L		129	70 - 130
Hexachlorobenzene	1.99	2.10		ug/L		106	70 - 130
Hexachlorocyclopentadiene	1.99	1.78		ug/L		89	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.08		ug/L		105	70 - 130
Isophorone	1.99	1.92		ug/L		97	70 - 130
Lindane	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: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCS 380-105975/23-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Malathion	1.99	2.19		ug/L		110	70 - 130
Methoxychlor	1.99	2.07		ug/L		104	70 - 130
Metolachlor	1.99	2.35		ug/L		118	70 - 130
Molinate	1.99	2.19		ug/L		110	70 - 130
Naphthalene	1.99	1.91		ug/L		96	70 - 130
Parathion	1.99	2.12		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	1.99	2.13		ug/L		107	70 - 130
Phenanthrene	1.99	2.02		ug/L		102	70 - 130
Propachlor	1.99	2.16		ug/L		109	70 - 130
Pyrene	1.99	2.12		ug/L		107	70 - 130
Simazine	1.99	1.83		ug/L		92	70 - 130
Terbacil	1.99	1.35	*	ug/L		68	70 - 130
Terbutylazine	1.99	2.10		ug/L		106	70 - 130
Thiobencarb	1.99	2.34		ug/L		118	70 - 130
trans-Nonachlor	1.99	2.29		ug/L		115	70 - 130
Trifluralin	1.99	2.11		ug/L		106	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	102		70 - 130
Triphenylphosphate	119		70 - 130

**Lab Sample ID: LCSD 380-105975/24-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.99	2.02		ug/L		102	70 - 130	0	20
2,4'-DDD	1.99	2.29		ug/L		115	70 - 130	0	20
2,4'-DDE	1.99	2.22		ug/L		112	70 - 130	1	20
2,4'-DDT	1.99	2.11		ug/L		106	70 - 130	2	20
2,4-Dinitrotoluene	1.99	1.89		ug/L		95	70 - 130	6	20
2,6-Dinitrotoluene	1.99	1.90		ug/L		95	70 - 130	8	20
2-Methylnaphthalene	1.99	2.06		ug/L		103	70 - 130	1	20
4,4'-DDD	1.99	2.11		ug/L		106	70 - 130	1	20
4,4'-DDE	1.99	2.48		ug/L		125	70 - 130	3	20
4,4'-DDT	1.99	2.10		ug/L		106	70 - 130	3	20
Acenaphthene	1.99	1.98		ug/L		99	70 - 130	1	20
Acenaphthylene	1.99	2.06		ug/L		104	70 - 130	3	20
Acetochlor	1.99	2.27		ug/L		114	70 - 130	1	20
Alachlor	1.99	2.31		ug/L		116	70 - 130	1	20
alpha-BHC	1.99	2.05		ug/L		103	70 - 130	2	20
alpha-Chlordane	1.99	2.27		ug/L		114	70 - 130	0	20
Anthracene	1.99	1.83		ug/L		92	70 - 130	0	20
Atrazine	1.99	2.04		ug/L		103	70 - 130	2	20
Benz(a)anthracene	1.99	2.26		ug/L		114	70 - 130	2	20
Benzo[a]pyrene	1.99	2.05		ug/L		103	70 - 130	2	20
Benzo[b]fluoranthene	1.99	2.26		ug/L		113	70 - 130	2	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 380-105975/24-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Benzo[g,h,i]perylene	1.99	2.13		ug/L		107	70 - 130	3		20
Benzo[k]fluoranthene	1.99	2.25		ug/L		113	70 - 130	1		20
beta-BHC	1.99	2.07		ug/L		104	70 - 130	2		20
Bis(2-ethylhexyl) phthalate	1.99	2.07		ug/L		104	70 - 130	10		20
Butachlor	1.99	2.19		ug/L		110	70 - 130	2		20
Butylbenzylphthalate	1.99	2.22		ug/L		111	70 - 130	3		20
Chlorobenzilate	1.99	2.14		ug/L		108	70 - 130	2		20
Chloroneb	1.99	1.92		ug/L		96	70 - 130	1		20
Chlorothalonil (Draconil, Bravo)	1.99	2.46		ug/L		124	70 - 130	8		20
Chlorpyrifos	1.99	2.05		ug/L		103	70 - 130	0		20
Chrysene	1.99	2.13		ug/L		107	70 - 130	2		20
delta-BHC	1.99	2.03		ug/L		102	70 - 130	3		20
Di(2-ethylhexyl)adipate	1.99	2.17		ug/L		109	70 - 130	6		20
Dibenz(a,h)anthracene	1.99	2.12		ug/L		106	70 - 130	3		20
Diclorvos (DDVP)	1.99	1.96		ug/L		98	70 - 130	3		20
Dieldrin	1.99	2.19		ug/L		110	70 - 130	1		20
Diethylphthalate	1.99	2.19		ug/L		110	70 - 130	1		20
Dimethylphthalate	1.99	2.09		ug/L		105	70 - 130	0		20
Di-n-butyl phthalate	3.98	4.19		ug/L		105	70 - 130	1		20
Di-n-octyl phthalate	1.99	2.07		ug/L		104	70 - 130	16		20
Endosulfan I (Alpha)	1.99	2.02		ug/L		102	70 - 130	2		20
Endosulfan II (Beta)	1.99	2.19		ug/L		110	70 - 130	1		20
Endosulfan sulfate	1.99	2.18		ug/L		110	70 - 130	0		20
Endrin	1.99	1.90		ug/L		95	70 - 130	4		20
Endrin aldehyde	1.99	2.29		ug/L		115	60 - 130	4		20
EPTC	1.99	2.12		ug/L		107	70 - 130	1		20
Fluoranthene	1.99	2.35		ug/L		118	70 - 130	0		20
Fluorene	1.99	2.13		ug/L		107	70 - 130	0		20
gamma-Chlordane	1.99	2.26		ug/L		114	70 - 130	1		20
Heptachlor	1.99	2.06		ug/L		103	70 - 130	2		20
Heptachlor epoxide (isomer B)	1.99	2.55		ug/L		128	70 - 130	0		20
Hexachlorobenzene	1.99	2.09		ug/L		105	70 - 130	0		20
Hexachlorocyclopentadiene	1.99	1.79		ug/L		90	70 - 130	1		20
Indeno[1,2,3-cd]pyrene	1.99	2.17		ug/L		109	70 - 130	4		20
Isophorone	1.99	1.94		ug/L		98	70 - 130	1		20
Lindane	1.99	1.91		ug/L		96	70 - 130	2		20
Malathion	1.99	2.19		ug/L		110	70 - 130	0		20
Methoxychlor	1.99	2.05		ug/L		103	70 - 130	1		20
Metolachlor	1.99	2.33		ug/L		117	70 - 130	1		20
Molinate	1.99	2.16		ug/L		108	70 - 130	1		20
Naphthalene	1.99	1.92		ug/L		97	70 - 130	0		20
Parathion	1.99	2.14		ug/L		108	70 - 130	1		20
Pendimethalin (Penoxaline)	1.99	2.15		ug/L		108	70 - 130	1		20
Phenanthrene	1.99	2.04		ug/L		102	70 - 130	1		20
Propachlor	1.99	2.14		ug/L		107	70 - 130	1		20
Pyrene	1.99	2.11		ug/L		106	70 - 130	0		20
Simazine	1.99	1.84		ug/L		92	70 - 130	1		20
Terbacil	1.99	1.56		ug/L		79	70 - 130	15		20
Terbutylazine	1.99	2.08		ug/L		104	70 - 130	1		20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 380-105975/24-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thiobencarb	1.99	2.33		ug/L		117	70 - 130	1	20
trans-Nonachlor	1.99	2.30		ug/L		116	70 - 130	1	20
Trifluralin	1.99	2.09		ug/L		105	70 - 130	1	20

  

Surrogate	%Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	102		70 - 130
Triphenylphosphate	118		70 - 130

**Lab Sample ID: MRL 380-105975/22-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0995	0.109		ug/L		110	50 - 150
2,4'-DDD	0.0995	0.0980	J	ug/L		99	50 - 150
2,4'-DDE	0.0995	0.110		ug/L		110	50 - 150
2,4'-DDT	0.0995	0.121		ug/L		122	50 - 150
2,4-Dinitrotoluene	0.0995	0.109		ug/L		109	50 - 150
2,6-Dinitrotoluene	0.0995	0.112		ug/L		113	50 - 150
2-Methylnaphthalene	0.0995	0.103		ug/L		104	50 - 150
4,4'-DDD	0.0995	0.126		ug/L		126	50 - 150
4,4'-DDE	0.0995	0.120		ug/L		121	50 - 150
4,4'-DDT	0.0995	0.120		ug/L		120	50 - 150
Acenaphthene	0.0995	0.103		ug/L		103	50 - 150
Acenaphthylene	0.0995	0.100		ug/L		101	50 - 150
Acetochlor	0.0995	0.118		ug/L		119	50 - 150
Alachlor	0.0497	0.0564		ug/L		113	50 - 150
alpha-BHC	0.0995	0.111		ug/L		111	50 - 150
alpha-Chlordane	0.0249	0.0346	J	ug/L		139	50 - 150
Anthracene	0.0199	0.0260		ug/L		131	50 - 150
Atrazine	0.0497	0.0731		ug/L		147	50 - 150
Benz(a)anthracene	0.0497	0.0607		ug/L		122	50 - 150
Benzo[a]pyrene	0.0199	0.0179	J	ug/L		90	50 - 150
Benzo[b]fluoranthene	0.0199	0.0173	J	ug/L		87	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0512		ug/L		103	50 - 150
Benzo[k]fluoranthene	0.0199	0.0186	J	ug/L		93	50 - 150
beta-BHC	0.0995	0.114		ug/L		115	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.551	J	ug/L		92	50 - 150
Butachlor	0.0497	0.0781	^3+	ug/L		157	50 - 150
Butylbenzylphthalate	0.497	0.533		ug/L		107	50 - 150
Chlorobenzilate	0.0995	0.0997		ug/L		100	50 - 150
Chloroneb	0.0995	0.122		ug/L		123	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0995	0.115		ug/L		116	50 - 150
Chlorpyrifos	0.0497	0.0736		ug/L		148	50 - 150
Chrysene	0.0199	0.0224		ug/L		113	50 - 150
delta-BHC	0.0995	0.108		ug/L		109	50 - 150
Di(2-ethylhexyl)adipate	0.597	0.624		ug/L		105	50 - 150

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-105975/22-A**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz(a,h)anthracene	0.0497	0.0486	J	ug/L		98	50 - 150
Diclorvos (DDVP)	0.0497	0.0490	J	ug/L		98	50 - 150
Dieldrin	0.00995	0.0123		ug/L		123	50 - 150
Diethylphthalate	0.497	0.558		ug/L		112	50 - 150
Dimethylphthalate	0.497	0.524		ug/L		105	50 - 150
Di-n-butyl phthalate	0.497	0.562	J	ug/L		113	49 - 243
Di-n-octyl phthalate	0.0995	0.113		ug/L		114	50 - 150
Endosulfan I (Alpha)	0.0995	0.108		ug/L		108	50 - 150
Endosulfan II (Beta)	0.0995	0.134		ug/L		134	50 - 150
Endosulfan sulfate	0.0995	0.120		ug/L		120	50 - 150
Endrin	0.00995	0.0121		ug/L		122	50 - 150
Endrin aldehyde	0.0995	0.133		ug/L		133	50 - 150
EPTC	0.0995	0.0981	J	ug/L		99	50 - 150
Fluoranthene	0.0995	0.114		ug/L		115	50 - 150
Fluorene	0.0497	0.0525		ug/L		106	50 - 150
gamma-Chlordane	0.0249	0.0327	J	ug/L		131	50 - 150
Heptachlor	0.00995	0.0117		ug/L		118	50 - 150
Heptachlor epoxide (isomer B)	0.00995	0.0138		ug/L		139	50 - 150
Hexachlorobenzene	0.0497	0.0506		ug/L		102	50 - 150
Hexachlorocyclopentadiene	0.0497	<0.038		ug/L		70	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0456	J	ug/L		92	50 - 150
Isophorone	0.0995	0.113		ug/L		114	50 - 150
Lindane	0.00995	0.0151	^3+	ug/L		152	50 - 150
Malathion	0.0995	0.121		ug/L		121	50 - 150
Methoxychlor	0.0497	0.0728		ug/L		146	50 - 150
Metolachlor	0.0497	0.0621		ug/L		125	50 - 150
Molinate	0.0995	0.107		ug/L		108	50 - 150
Naphthalene	0.0995	0.104		ug/L		105	50 - 150
Parathion	0.0995	0.104		ug/L		105	50 - 150
Pendimethalin (Penoxaline)	0.0995	0.112		ug/L		112	50 - 150
Phenanthrene	0.0398	0.0463		ug/L		116	50 - 150
Propachlor	0.0497	0.0540		ug/L		109	50 - 150
Pyrene	0.0497	0.0668		ug/L		134	50 - 150
Simazine	0.0497	0.0718		ug/L		144	50 - 150
Terbacil	0.0995	0.0870	J	ug/L		88	50 - 150
Terbutylazine	0.0995	0.116		ug/L		117	50 - 150
Thiobencarb	0.0995	0.119		ug/L		120	50 - 150
trans-Nonachlor	0.0249	0.0332	J	ug/L		133	50 - 150
Trifluralin	0.0995	0.113		ug/L		114	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	114		70 - 130

# QC Sample Results

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

Job ID: 380-110669-1  
 SDG: Weekly

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

**Lab Sample ID: 380-110542-AI-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.097		1.94	1.96		ug/L		101	70 - 130
2,4'-DDD	<0.097		1.94	2.24		ug/L		115	70 - 130
2,4'-DDE	<0.097		1.94	2.17		ug/L		111	70 - 130
2,4'-DDT	<0.097		1.94	2.05		ug/L		106	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.71		ug/L		88	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.67		ug/L		86	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.99		ug/L		102	70 - 130
4,4'-DDD	<0.097		1.94	2.05		ug/L		106	70 - 130
4,4'-DDE	<0.097		1.94	2.40		ug/L		124	70 - 130
4,4'-DDT	<0.097		1.94	2.04		ug/L		105	70 - 130
Acenaphthene	<0.097		1.94	1.91		ug/L		98	70 - 130
Acenaphthylene	<0.097		1.94	2.02		ug/L		104	70 - 130
Acetochlor	<0.097		1.94	2.26		ug/L		116	70 - 130
Alachlor	<0.048		1.94	2.24		ug/L		115	70 - 130
alpha-BHC	<0.097		1.94	2.04		ug/L		105	70 - 130
alpha-Chlordane	<0.048		1.94	2.21		ug/L		114	70 - 130
Anthracene	<0.019		1.94	1.70		ug/L		88	70 - 130
Atrazine	<0.048		1.94	2.00		ug/L		103	70 - 130
Benz(a)anthracene	<0.048		1.94	2.17		ug/L		112	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.93		ug/L		99	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.21		ug/L		114	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	2.10		ug/L		108	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.18		ug/L		112	70 - 130
beta-BHC	<0.097		1.94	2.03		ug/L		104	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.96		ug/L		101	70 - 130
Butachlor	<0.048	^3+	1.94	2.12		ug/L		109	70 - 130
Butylbenzylphthalate	<0.48		1.94	2.17		ug/L		111	70 - 130
Chlorobenzilate	<0.097		1.94	1.88		ug/L		97	70 - 130
Chloroneb	<0.097		1.94	1.89		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.19		ug/L		113	70 - 130
Chlorpyrifos	<0.048		1.94	1.99		ug/L		102	70 - 130
Chrysene	<0.019		1.94	2.08		ug/L		107	70 - 130
delta-BHC	<0.097		1.94	2.01		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.11		ug/L		109	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	2.06		ug/L		106	70 - 130
Diclorvos (DDVP)	<0.048		1.94	1.81		ug/L		93	70 - 130
Dieldrin	<0.0097		1.94	2.11		ug/L		109	70 - 130
Diethylphthalate	<0.48		1.94	2.14		ug/L		110	70 - 130
Dimethylphthalate	<0.48		1.94	1.99		ug/L		102	70 - 130
Di-n-butyl phthalate	<0.97		3.89	4.13		ug/L		106	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.93		ug/L		99	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.98		ug/L		102	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.11		ug/L		109	70 - 130
Endosulfan sulfate	<0.097		1.94	2.13		ug/L		109	70 - 130
Endrin	<0.0097		1.94	1.83		ug/L		94	70 - 130
Endrin aldehyde	<0.097		1.94	2.06		ug/L		106	60 - 130
EPTC	<0.097		1.94	2.05		ug/L		106	70 - 130
Fluoranthene	<0.097		1.94	2.29		ug/L		118	70 - 130

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110542-AI-1-A MS**

**Matrix: Water**

**Analysis Batch: 106221**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 105975**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Fluorene	<0.048		1.94	2.08		ug/L		107	70 - 130
gamma-Chlordane	<0.048		1.94	2.21		ug/L		114	70 - 130
Heptachlor	<0.0097		1.94	2.02		ug/L		104	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.44		ug/L		126	70 - 130
Hexachlorobenzene	<0.048		1.94	2.03		ug/L		104	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	1.74		ug/L		89	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	2.13		ug/L		110	70 - 130
Isophorone	<0.097		1.94	1.86		ug/L		95	70 - 130
Lindane	<0.0097	^3+	1.94	1.86		ug/L		96	70 - 130
Malathion	<0.097		1.94	2.13		ug/L		110	70 - 130
Methoxychlor	<0.048		1.94	2.00		ug/L		103	70 - 130
Metolachlor	<0.048		1.94	2.27		ug/L		117	70 - 130
Molinate	<0.097		1.94	2.09		ug/L		107	70 - 130
Naphthalene	<0.097		1.94	1.84		ug/L		95	70 - 130
Parathion	<0.097		1.94	2.08		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	2.14		ug/L		110	70 - 130
Phenanthrene	<0.039		1.94	1.98		ug/L		102	70 - 130
Propachlor	<0.048		1.94	2.06		ug/L		106	70 - 130
Pyrene	<0.048		1.94	2.06		ug/L		106	70 - 130
Simazine	<0.048		1.94	1.75		ug/L		90	70 - 130
Terbacil	<0.097	*-	1.94	1.41		ug/L		72	70 - 130
Terbutylazine	<0.097		1.94	2.00		ug/L		103	70 - 130
Thiobencarb	<0.097		1.94	2.27		ug/L		117	70 - 130
trans-Nonachlor	<0.048		1.94	2.25		ug/L		116	70 - 130
Trifluralin	<0.097		1.94	2.07		ug/L		106	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	102		70 - 130
Triphenylphosphate	118		70 - 130

**Lab Sample ID: 380-110544-H-1-A DU**

**Matrix: Water**

**Analysis Batch: 106221**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 105975**

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

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# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110544-H-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Acetochlor	<0.097		<0.096		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.096		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		<0.096		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Butachlor	<0.048	^3+	<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.096		ug/L		NC	20
Chloroneb	<0.097		<0.096		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.096		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		<0.096		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	<0.0097		<0.0096		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.96		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.096		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.096		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.096		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.096		ug/L		NC	20
Endrin	<0.0097		<0.0096		ug/L		NC	20
Endrin aldehyde	<0.097		<0.096		ug/L		NC	20
EPTC	<0.097		<0.096		ug/L		NC	20
Fluoranthene	<0.097		<0.096		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		<0.0096		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0096		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		<0.096		ug/L		NC	20
Lindane	<0.0097	^3+	<0.0096		ug/L		NC	20
Malathion	<0.097		<0.096		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		<0.096		ug/L		NC	20

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# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110544-H-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 106221**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 105975**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Naphthalene	<0.097		<0.096		ug/L		NC	20
Parathion	<0.097		<0.096		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.096		ug/L		NC	20
Phenanthrene	<0.039		<0.038		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	0.056		0.0544		ug/L		2	20
Terbacil	<0.097	*-	<0.096	*-	ug/L		NC	20
Terbutylazine	<0.097		<0.096		ug/L		NC	20
Thiobencarb	<0.097		<0.096		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		<0.096		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	114		70 - 130

**Lab Sample ID: MB 380-106647/21-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2,4'-DDD	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2,4'-DDE	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2,4'-DDT	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
2-Methylnaphthalene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
4,4'-DDD	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
4,4'-DDE	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
4,4'-DDT	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Acenaphthene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Acenaphthylene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Acetochlor	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Alachlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
alpha-BHC	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
alpha-Chlordane	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Anthracene	<0.020		0.020	ug/L		09/04/24 10:00	09/05/24 15:24	1
Atrazine	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Benz(a)anthracene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Benzo[a]pyrene	<0.020		0.020	ug/L		09/04/24 10:00	09/05/24 15:24	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		09/04/24 10:00	09/05/24 15:24	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		09/04/24 10:00	09/05/24 15:24	1
beta-BHC	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-106647/21-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		09/04/24 10:00	09/05/24 15:24	1
Butachlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Butylbenzylphthalate	<0.50		0.50	ug/L		09/04/24 10:00	09/05/24 15:24	1
Chlorobenzilate	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Chloroneb	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Chlorpyrifos	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Chrysene	<0.020		0.020	ug/L		09/04/24 10:00	09/05/24 15:24	1
delta-BHC	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		09/04/24 10:00	09/05/24 15:24	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Dieldrin	<0.0099		0.0099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Diethylphthalate	<0.50		0.50	ug/L		09/04/24 10:00	09/05/24 15:24	1
Dimethylphthalate	<0.50		0.50	ug/L		09/04/24 10:00	09/05/24 15:24	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		09/04/24 10:00	09/05/24 15:24	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Endosulfan sulfate	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Endrin	<0.0099		0.0099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Endrin aldehyde	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
EPTC	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Fluoranthene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Fluorene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
gamma-Chlordane	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Heptachlor	<0.0099		0.0099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Hexachlorobenzene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Isophorone	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Lindane	<0.0099		0.0099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Malathion	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Methoxychlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Metolachlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Molinate	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Naphthalene	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Parathion	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Phenanthrene	<0.040		0.040	ug/L		09/04/24 10:00	09/05/24 15:24	1
Propachlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Pyrene	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Simazine	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1
Terbacil	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Terbutylazine	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Thiobencarb	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		09/04/24 10:00	09/05/24 15:24	1
trans-Nonachlor	<0.050		0.050	ug/L		09/04/24 10:00	09/05/24 15:24	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-106647/21-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Trifluralin	<0.099		0.099	ug/L		09/04/24 10:00	09/05/24 15:24	1	
<b>MB MB</b>									
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.28	T J N	ug/L		2.26	124-18-5	09/04/24 10:00	09/05/24 15:24	1
Plumbane, diethyldimethyl-	0.635	T J N	ug/L		2.53	1762-27-2	09/04/24 10:00	09/05/24 15:24	1
<b>MB MB</b>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	100		70 - 130				09/04/24 10:00	09/05/24 15:24	1
Perylene-d12	97		70 - 130				09/04/24 10:00	09/05/24 15:24	1
Triphenylphosphate	94		70 - 130				09/04/24 10:00	09/05/24 15:24	1

**Lab Sample ID: LCS 380-106647/23-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.99	1.81		ug/L		91	70 - 130
2,4'-DDD	1.99	1.90		ug/L		95	70 - 130
2,4'-DDE	1.99	1.87		ug/L		94	70 - 130
2,4'-DDT	1.99	2.00		ug/L		101	70 - 130
2,4-Dinitrotoluene	1.99	1.59		ug/L		80	70 - 130
2,6-Dinitrotoluene	1.99	1.64		ug/L		82	70 - 130
2-Methylnaphthalene	1.99	1.80		ug/L		91	70 - 130
4,4'-DDD	1.99	2.05		ug/L		103	70 - 130
4,4'-DDE	1.99	1.69		ug/L		85	70 - 130
4,4'-DDT	1.99	1.94		ug/L		98	70 - 130
Acenaphthene	1.99	1.88		ug/L		95	70 - 130
Acenaphthylene	1.99	1.85		ug/L		93	70 - 130
Acetochlor	1.99	2.00		ug/L		101	70 - 130
Alachlor	1.99	1.89		ug/L		95	70 - 130
alpha-BHC	1.99	1.84		ug/L		93	70 - 130
alpha-Chlordane	1.99	1.57		ug/L		79	70 - 130
Anthracene	1.99	1.78		ug/L		89	70 - 130
Atrazine	1.99	1.96		ug/L		99	70 - 130
Benz(a)anthracene	1.99	1.91		ug/L		96	70 - 130
Benzo[a]pyrene	1.99	1.95		ug/L		98	70 - 130
Benzo[b]fluoranthene	1.99	1.93		ug/L		97	70 - 130
Benzo[g,h,i]perylene	1.99	2.05		ug/L		103	70 - 130
Benzo[k]fluoranthene	1.99	1.88		ug/L		95	70 - 130
beta-BHC	1.99	1.85		ug/L		93	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.01		ug/L		101	70 - 130
Butachlor	1.99	1.90		ug/L		96	70 - 130
Butylbenzylphthalate	1.99	2.11		ug/L		106	70 - 130
Chlorobenzilate	1.99	1.90		ug/L		96	70 - 130
Chloroneb	1.99	1.91		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	1.95		ug/L		98	70 - 130
Chlorpyrifos	1.99	2.07		ug/L		104	70 - 130
Chrysene	1.99	1.81		ug/L		91	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCS 380-106647/23-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
delta-BHC	1.99	1.93		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.04		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.99	2.15		ug/L		108	70 - 130
Diclorvos (DDVP)	1.99	1.78		ug/L		89	70 - 130
Dieldrin	1.99	1.89		ug/L		95	70 - 130
Diethylphthalate	1.99	1.88		ug/L		95	70 - 130
Dimethylphthalate	1.99	1.95		ug/L		98	70 - 130
Di-n-butyl phthalate	3.98	3.85		ug/L		97	70 - 130
Di-n-octyl phthalate	1.99	1.85		ug/L		93	70 - 130
Endosulfan I (Alpha)	1.99	1.81		ug/L		91	70 - 130
Endosulfan II (Beta)	1.99	1.99		ug/L		100	70 - 130
Endosulfan sulfate	1.99	2.09		ug/L		105	70 - 130
Endrin	1.99	1.98		ug/L		99	70 - 130
Endrin aldehyde	1.99	1.52		ug/L		76	60 - 130
EPTC	1.99	2.03		ug/L		102	70 - 130
Fluoranthene	1.99	1.92		ug/L		96	70 - 130
Fluorene	1.99	1.88		ug/L		94	70 - 130
gamma-Chlordane	1.99	1.57		ug/L		79	70 - 130
Heptachlor	1.99	1.71		ug/L		86	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.70		ug/L		85	70 - 130
Hexachlorobenzene	1.99	1.61		ug/L		81	70 - 130
Hexachlorocyclopentadiene	1.99	1.84		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.06		ug/L		103	70 - 130
Isophorone	1.99	1.77		ug/L		89	70 - 130
Lindane	1.99	1.81		ug/L		91	70 - 130
Malathion	1.99	1.93		ug/L		97	70 - 130
Methoxychlor	1.99	1.95		ug/L		98	70 - 130
Metolachlor	1.99	1.91		ug/L		96	70 - 130
Molinate	1.99	2.04		ug/L		103	70 - 130
Naphthalene	1.99	1.75		ug/L		88	70 - 130
Parathion	1.99	2.00		ug/L		100	70 - 130
Pendimethalin (Penoxaline)	1.99	1.97		ug/L		99	70 - 130
Phenanthrene	1.99	1.74		ug/L		87	70 - 130
Propachlor	1.99	1.98		ug/L		100	70 - 130
Pyrene	1.99	1.94		ug/L		97	70 - 130
Simazine	1.99	1.83		ug/L		92	70 - 130
Terbacil	1.99	1.51		ug/L		76	70 - 130
Terbutylazine	1.99	2.02		ug/L		101	70 - 130
Thiobencarb	1.99	1.86		ug/L		94	70 - 130
trans-Nonachlor	1.99	1.85		ug/L		93	70 - 130
Trifluralin	1.99	1.67		ug/L		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	100		70 - 130

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 380-106647/24-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD
									Limit
1-Methylnaphthalene	1.99	1.80		ug/L		91	70 - 130	1	20
2,4'-DDD	1.99	1.88		ug/L		94	70 - 130	1	20
2,4'-DDE	1.99	1.73		ug/L		87	70 - 130	8	20
2,4'-DDT	1.99	1.98		ug/L		100	70 - 130	1	20
2,4-Dinitrotoluene	1.99	1.56		ug/L		79	70 - 130	1	20
2,6-Dinitrotoluene	1.99	1.62		ug/L		81	70 - 130	1	20
2-Methylnaphthalene	1.99	1.80		ug/L		90	70 - 130	0	20
4,4'-DDD	1.99	2.02		ug/L		101	70 - 130	2	20
4,4'-DDE	1.99	1.79		ug/L		90	70 - 130	6	20
4,4'-DDT	1.99	1.90		ug/L		96	70 - 130	2	20
Acenaphthene	1.99	1.93		ug/L		97	70 - 130	2	20
Acenaphthylene	1.99	1.88		ug/L		95	70 - 130	1	20
Acetochlor	1.99	1.97		ug/L		99	70 - 130	2	20
Alachlor	1.99	1.89		ug/L		95	70 - 130	0	20
alpha-BHC	1.99	1.86		ug/L		94	70 - 130	1	20
alpha-Chlordane	1.99	1.91		ug/L		96	70 - 130	19	20
Anthracene	1.99	1.81		ug/L		91	70 - 130	2	20
Atrazine	1.99	1.95		ug/L		98	70 - 130	1	20
Benz(a)anthracene	1.99	1.90		ug/L		96	70 - 130	0	20
Benzo[a]pyrene	1.99	2.06		ug/L		104	70 - 130	6	20
Benzo[b]fluoranthene	1.99	2.00		ug/L		100	70 - 130	3	20
Benzo[g,h,i]perylene	1.99	2.25		ug/L		113	70 - 130	9	20
Benzo[k]fluoranthene	1.99	2.07		ug/L		104	70 - 130	9	20
beta-BHC	1.99	1.88		ug/L		94	70 - 130	2	20
Bis(2-ethylhexyl) phthalate	1.99	2.11		ug/L		106	70 - 130	5	20
Butachlor	1.99	1.90		ug/L		96	70 - 130	0	20
Butylbenzylphthalate	1.99	2.07		ug/L		104	70 - 130	2	20
Chlorobenzilate	1.99	1.78		ug/L		90	70 - 130	7	20
Chloroneb	1.99	1.91		ug/L		96	70 - 130	0	20
Chlorothalonil (Draconil, Bravo)	1.99	1.91		ug/L		96	70 - 130	2	20
Chlorpyrifos	1.99	1.99		ug/L		100	70 - 130	4	20
Chrysene	1.99	2.00		ug/L		100	70 - 130	10	20
delta-BHC	1.99	1.92		ug/L		97	70 - 130	0	20
Di(2-ethylhexyl)adipate	1.99	2.00		ug/L		101	70 - 130	2	20
Dibenz(a,h)anthracene	1.99	2.31		ug/L		116	70 - 130	7	20
Diclorvos (DDVP)	1.99	1.78		ug/L		89	70 - 130	0	20
Dieldrin	1.99	1.82		ug/L		91	70 - 130	4	20
Diethylphthalate	1.99	1.89		ug/L		95	70 - 130	0	20
Dimethylphthalate	1.99	1.95		ug/L		98	70 - 130	0	20
Di-n-butyl phthalate	3.98	3.68		ug/L		93	70 - 130	4	20
Di-n-octyl phthalate	1.99	2.00		ug/L		101	70 - 130	8	20
Endosulfan I (Alpha)	1.99	1.89		ug/L		95	70 - 130	5	20
Endosulfan II (Beta)	1.99	1.97		ug/L		99	70 - 130	1	20
Endosulfan sulfate	1.99	1.83		ug/L		92	70 - 130	13	20
Endrin	1.99	1.80		ug/L		91	70 - 130	9	20
Endrin aldehyde	1.99	1.49		ug/L		75	60 - 130	2	20
EPTC	1.99	2.01		ug/L		101	70 - 130	1	20
Fluoranthene	1.99	1.96		ug/L		99	70 - 130	2	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 380-106647/24-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene	1.99	1.91		ug/L		96	70 - 130	2	20
gamma-Chlordane	1.99	1.89		ug/L		95	70 - 130	18	20
Heptachlor	1.99	1.81		ug/L		91	70 - 130	6	20
Heptachlor epoxide (isomer B)	1.99	2.03		ug/L		102	70 - 130	18	20
Hexachlorobenzene	1.99	1.64		ug/L		82	70 - 130	2	20
Hexachlorocyclopentadiene	1.99	1.74		ug/L		88	70 - 130	5	20
Indeno[1,2,3-cd]pyrene	1.99	2.29		ug/L		115	70 - 130	11	20
Isophorone	1.99	1.84		ug/L		93	70 - 130	4	20
Lindane	1.99	1.83		ug/L		92	70 - 130	1	20
Malathion	1.99	1.86		ug/L		93	70 - 130	4	20
Methoxychlor	1.99	2.00		ug/L		101	70 - 130	3	20
Metolachlor	1.99	1.86		ug/L		94	70 - 130	3	20
Molinate	1.99	2.04		ug/L		103	70 - 130	0	20
Naphthalene	1.99	1.77		ug/L		89	70 - 130	2	20
Parathion	1.99	1.95		ug/L		98	70 - 130	2	20
Pendimethalin (Penoxaline)	1.99	1.82		ug/L		91	70 - 130	8	20
Phenanthrene	1.99	1.77		ug/L		89	70 - 130	2	20
Propachlor	1.99	1.97		ug/L		99	70 - 130	0	20
Pyrene	1.99	1.95		ug/L		98	70 - 130	1	20
Simazine	1.99	1.79		ug/L		90	70 - 130	2	20
Terbacil	1.99	1.53		ug/L		77	70 - 130	1	20
Terbutylazine	1.99	1.99		ug/L		100	70 - 130	1	20
Thiobencarb	1.99	1.88		ug/L		94	70 - 130	1	20
trans-Nonachlor	1.99	1.98		ug/L		100	70 - 130	7	20
Trifluralin	1.99	1.66		ug/L		83	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	105		70 - 130
Triphenylphosphate	100		70 - 130

**Lab Sample ID: MRL 380-106647/22-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0993	0.104		ug/L		105	50 - 150
2,4'-DDD	0.0993	0.101		ug/L		102	50 - 150
2,4'-DDE	0.0993	0.103		ug/L		104	50 - 150
2,4'-DDT	0.0993	0.104		ug/L		105	50 - 150
2,4-Dinitrotoluene	0.0993	0.0923	J	ug/L		93	50 - 150
2,6-Dinitrotoluene	0.0993	0.0976	J	ug/L		98	50 - 150
2-Methylnaphthalene	0.0993	0.102		ug/L		102	50 - 150
4,4'-DDD	0.0993	0.111		ug/L		111	50 - 150
4,4'-DDE	0.0993	0.100		ug/L		101	50 - 150
4,4'-DDT	0.0993	0.100		ug/L		101	50 - 150
Acenaphthene	0.0993	0.0916	J	ug/L		92	50 - 150
Acenaphthylene	0.0993	0.0930	J	ug/L		94	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-106647/22-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Acetochlor	0.0993	0.118		ug/L		119	50 - 150
Alachlor	0.0497	0.0534		ug/L		108	50 - 150
alpha-BHC	0.0993	0.108		ug/L		108	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		105	50 - 150
Anthracene	0.0199	0.0201		ug/L		101	50 - 150
Atrazine	0.0497	<0.048		ug/L		88	50 - 150
Benz(a)anthracene	0.0497	0.0558		ug/L		112	50 - 150
Benzo[a]pyrene	0.0199	0.0181	J	ug/L		91	50 - 150
Benzo[b]fluoranthene	0.0199	0.0166	J	ug/L		84	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0435	J	ug/L		88	50 - 150
Benzo[k]fluoranthene	0.0199	<0.017		ug/L		81	50 - 150
beta-BHC	0.0993	0.103		ug/L		104	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.598	J	ug/L		100	50 - 150
Butachlor	0.0497	0.0607		ug/L		122	50 - 150
Butylbenzylphthalate	0.497	0.539		ug/L		109	50 - 150
Chlorobenzilate	0.0993	0.0899	J	ug/L		91	50 - 150
Chloroneb	0.0993	0.0884	J	ug/L		89	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0993	0.0984	J	ug/L		99	50 - 150
Chlorpyrifos	0.0497	0.0530		ug/L		107	50 - 150
Chrysene	0.0199	0.0210		ug/L		106	50 - 150
delta-BHC	0.0993	0.109		ug/L		110	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.628		ug/L		105	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0453	J	ug/L		91	50 - 150
Diclorvos (DDVP)	0.0497	0.0538		ug/L		108	50 - 150
Dieldrin	0.00993	0.00977	J	ug/L		98	50 - 150
Diethylphthalate	0.497	0.515		ug/L		104	50 - 150
Dimethylphthalate	0.497	0.520		ug/L		105	50 - 150
Di-n-butyl phthalate	0.497	0.506	J	ug/L		102	49 - 243
Di-n-octyl phthalate	0.0993	0.102		ug/L		103	50 - 150
Endosulfan I (Alpha)	0.0993	0.0882	J	ug/L		89	50 - 150
Endosulfan II (Beta)	0.0993	0.117		ug/L		117	50 - 150
Endosulfan sulfate	0.0993	0.101		ug/L		102	50 - 150
Endrin	0.00993	0.0124		ug/L		125	50 - 150
Endrin aldehyde	0.0993	0.0901	J	ug/L		91	50 - 150
EPTC	0.0993	0.0929	J	ug/L		94	50 - 150
Fluoranthene	0.0993	0.0969	J	ug/L		98	50 - 150
Fluorene	0.0497	<0.050		ug/L		99	50 - 150
gamma-Chlordane	0.0248	0.0243	J	ug/L		98	50 - 150
Heptachlor	0.00993	0.0106		ug/L		107	50 - 150
Heptachlor epoxide (isomer B)	0.00993	0.0120		ug/L		120	50 - 150
Hexachlorobenzene	0.0497	0.0476	J	ug/L		96	50 - 150
Hexachlorocyclopentadiene	0.0497	0.0519		ug/L		104	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0446	J	ug/L		90	50 - 150
Isophorone	0.0993	0.112		ug/L		113	50 - 150
Lindane	0.00993	0.0127		ug/L		128	50 - 150
Malathion	0.0993	0.0990		ug/L		100	50 - 150
Methoxychlor	0.0497	0.0604		ug/L		122	50 - 150
Metolachlor	0.0497	0.0549		ug/L		111	50 - 150
Molinate	0.0993	0.115		ug/L		116	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-106647/22-A**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	0.0993	0.101		ug/L		101	50 - 150
Parathion	0.0993	0.100		ug/L		101	50 - 150
Pendimethalin (Penoxaline)	0.0993	0.0963	J	ug/L		97	50 - 150
Phenanthrene	0.0397	0.0399	J	ug/L		100	50 - 150
Propachlor	0.0497	0.0557		ug/L		112	50 - 150
Pyrene	0.0497	0.0483	J	ug/L		97	50 - 150
Simazine	0.0497	0.0418	J	ug/L		84	50 - 150
Terbacil	0.0993	0.0879	J	ug/L		89	50 - 150
Terbutylazine	0.0993	0.101		ug/L		102	50 - 150
Thiobencarb	0.0993	0.111		ug/L		111	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		96	50 - 150
Trifluralin	0.0993	0.0848	J	ug/L		85	50 - 150

  

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	102		70 - 130
Perylene-d12	103		70 - 130
Triphenylphosphate	101		70 - 130

**Lab Sample ID: 380-110960-M-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.94	1.70		ug/L		88	70 - 130
2,4'-DDD	<0.097		1.94	1.72		ug/L		89	70 - 130
2,4'-DDE	<0.097		1.94	1.64		ug/L		85	70 - 130
2,4'-DDT	<0.097		1.94	1.83		ug/L		94	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.51		ug/L		78	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.54		ug/L		80	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.70		ug/L		88	70 - 130
4,4'-DDD	<0.097		1.94	1.86		ug/L		96	70 - 130
4,4'-DDE	<0.097		1.94	1.49		ug/L		77	70 - 130
4,4'-DDT	<0.097		1.94	1.72		ug/L		89	70 - 130
Acenaphthene	<0.097		1.94	1.83		ug/L		95	70 - 130
Acenaphthylene	<0.097		1.94	1.74		ug/L		90	70 - 130
Acetochlor	<0.097		1.94	1.86		ug/L		96	70 - 130
Alachlor	<0.048		1.94	1.75		ug/L		90	70 - 130
alpha-BHC	<0.097		1.94	1.77		ug/L		91	70 - 130
alpha-Chlordane	<0.048		1.94	1.73		ug/L		89	70 - 130
Anthracene	<0.019	F1	1.94	0.980	F1	ug/L		51	70 - 130
Atrazine	<0.048		1.94	1.89		ug/L		98	70 - 130
Benz(a)anthracene	<0.048		1.94	1.65		ug/L		85	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.67		ug/L		86	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	1.99		ug/L		103	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	2.01		ug/L		104	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	1.94		ug/L		100	70 - 130
beta-BHC	<0.097		1.94	1.75		ug/L		90	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.87		ug/L		97	70 - 130



# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110960-M-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Butachlor	<0.048		1.94	1.73		ug/L		89	70 - 130
Butylbenzylphthalate	<0.48		1.94	1.87		ug/L		97	70 - 130
Chlorobenzilate	<0.097		1.94	1.64		ug/L		84	70 - 130
Chloroneb	<0.097		1.94	1.82		ug/L		94	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	1.73		ug/L		89	70 - 130
Chlorpyrifos	<0.048		1.94	1.93		ug/L		99	70 - 130
Chrysene	<0.019		1.94	1.88		ug/L		97	70 - 130
delta-BHC	<0.097		1.94	1.75		ug/L		90	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	1.76		ug/L		91	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	2.22		ug/L		114	70 - 130
Diclorvos (DDVP)	<0.048		1.94	1.66		ug/L		85	70 - 130
Dieldrin	<0.0097		1.94	1.73		ug/L		89	70 - 130
Diethylphthalate	<0.48		1.94	1.81		ug/L		93	70 - 130
Dimethylphthalate	<0.48		1.94	1.81		ug/L		94	70 - 130
Di-n-butyl phthalate	<0.97		3.88	3.44		ug/L		89	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.68		ug/L		86	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.73		ug/L		89	70 - 130
Endosulfan II (Beta)	<0.097		1.94	1.80		ug/L		93	70 - 130
Endosulfan sulfate	<0.097		1.94	1.75		ug/L		90	70 - 130
Endrin	<0.0097		1.94	1.64		ug/L		84	70 - 130
Endrin aldehyde	<0.097		1.94	1.27		ug/L		66	60 - 130
EPTC	<0.097		1.94	1.88		ug/L		97	70 - 130
Fluoranthene	<0.097		1.94	1.83		ug/L		94	70 - 130
Fluorene	<0.048		1.94	1.81		ug/L		93	70 - 130
gamma-Chlordane	<0.048		1.94	1.68		ug/L		86	70 - 130
Heptachlor	<0.0097		1.94	1.68		ug/L		87	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	1.77		ug/L		91	70 - 130
Hexachlorobenzene	<0.048		1.94	1.80		ug/L		93	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	1.88		ug/L		97	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	2.13		ug/L		110	70 - 130
Isophorone	<0.097		1.94	1.67		ug/L		86	70 - 130
Lindane	<0.0097		1.94	1.72		ug/L		89	70 - 130
Malathion	<0.097		1.94	1.70		ug/L		88	70 - 130
Methoxychlor	<0.048		1.94	1.92		ug/L		99	70 - 130
Metolachlor	<0.048		1.94	1.72		ug/L		89	70 - 130
Molinate	<0.097		1.94	1.93		ug/L		100	70 - 130
Naphthalene	<0.097		1.94	1.68		ug/L		87	70 - 130
Parathion	<0.097		1.94	1.76		ug/L		91	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	1.72		ug/L		89	70 - 130
Phenanthrene	<0.039		1.94	1.64		ug/L		85	70 - 130
Propachlor	<0.048		1.94	1.88		ug/L		97	70 - 130
Pyrene	<0.048		1.94	1.79		ug/L		92	70 - 130
Simazine	<0.048		1.94	1.65		ug/L		85	70 - 130
Terbacil	<0.097		1.94	1.47		ug/L		76	70 - 130
Terbutylazine	<0.097		1.94	1.92		ug/L		99	70 - 130
Thiobencarb	<0.097		1.94	1.77		ug/L		91	70 - 130
trans-Nonachlor	<0.048		1.94	1.86		ug/L		96	70 - 130
Trifluralin	<0.097		1.94	1.81		ug/L		93	70 - 130

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110960-M-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	106		70 - 130
Triphenylphosphate	90		70 - 130

**Lab Sample ID: 380-110973-L-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Sample Result	Sample Qualifier	DU		Unit	D	RPD	Limit
			Result	Qualifier				
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	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		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
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		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	<0.049		<0.049		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	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0097		<0.0097		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-110669-1  
 SDG: Weekly

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

**Lab Sample ID: 380-110973-L-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 106999**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 106647**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
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	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0097		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.097		<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	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		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	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.097		<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	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	87		70 - 130

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-475857/1-A**  
**Matrix: Water**  
**Analysis Batch: 478708**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

<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>08/29/24 07:10</i>	<i>09/09/24 11:17</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>75</i>		<i>33 - 139</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>73</i>		<i>33 - 126</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>54</i>		<i>12 - 120</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>82</i>		<i>36 - 120</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>32</i>		<i>10 - 120</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>87</i>		<i>47 - 131</i>	<i>08/29/24 07:10</i>	<i>09/09/24 11:17</i>	<i>1</i>

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

**Lab Sample ID: MB 570-475857/1-A**  
**Matrix: Water**  
**Analysis Batch: 475795**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

<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>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Acenaphthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Acenaphthylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</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>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Chrysene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Fluorene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</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>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Naphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Phenanthrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>08/29/24 07:10</i>	<i>08/29/24 13:25</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>71</i>		<i>28 - 127</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>61</i>		<i>31 - 120</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>47</i>		<i>17 - 120</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>62</i>		<i>27 - 120</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>29</i>		<i>10 - 120</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>74</i>		<i>45 - 120</i>	<i>08/29/24 07:10</i>	<i>08/29/24 13:25</i>	<i>1</i>

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-475857/2-A**  
**Matrix: Water**  
**Analysis Batch: 475795**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pyrene	20.0	14.2		ug/L		71	70 - 120
<b>Surrogate</b>							
	<b>%Recovery</b>	<b>LCS</b>	<b>Qualifier</b>	<b>Limits</b>			
2,4,6-Tribromophenol (Surr)	75			28 - 127			
2-Fluorobiphenyl (Surr)	63			31 - 120			
2-Fluorophenol (Surr)	53			17 - 120			
Nitrobenzene-d5 (Surr)	53			27 - 120			
Phenol-d6 (Surr)	35			10 - 120			
p-Terphenyl-d14 (Surr)	74			45 - 120			

**Lab Sample ID: LCS 570-475857/2-A**  
**Matrix: Water**  
**Analysis Batch: 476195**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	11.2		ug/L		56	47 - 120
2-Methylnaphthalene	20.0	11.2		ug/L		56	43 - 120
Acenaphthene	20.0	13.0		ug/L		65	60 - 132
Acenaphthylene	20.0	13.7		ug/L		68	54 - 126
Anthracene	20.0	14.6		ug/L		73	43 - 120
Benzo[a]anthracene	20.0	14.0		ug/L		70	42 - 133
Benzo[a]pyrene	20.0	14.5		ug/L		73	32 - 148
Benzo[b]fluoranthene	20.0	14.6		ug/L		73	42 - 140
Benzo[g,h,i]perylene	20.0	14.7		ug/L		73	1 - 195
Benzo[k]fluoranthene	20.0	14.6		ug/L		73	25 - 146
Chrysene	20.0	13.7		ug/L		69	44 - 140
Dibenz(a,h)anthracene	20.0	14.9		ug/L		75	1 - 200
Fluoranthene	20.0	15.1		ug/L		75	43 - 121
Fluorene	20.0	13.8	*	ug/L		69	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	14.6		ug/L		73	1 - 151
Naphthalene	20.0	11.1		ug/L		56	36 - 120
Phenanthrene	20.0	14.2		ug/L		71	65 - 120
<b>Surrogate</b>							
	<b>%Recovery</b>	<b>LCS</b>	<b>Qualifier</b>	<b>Limits</b>			
2,4,6-Tribromophenol (Surr)	74			28 - 127			
2-Fluorobiphenyl (Surr)	66			31 - 120			
2-Fluorophenol (Surr)	58			17 - 120			
Nitrobenzene-d5 (Surr)	58			27 - 120			
Phenol-d6 (Surr)	39			10 - 120			
p-Terphenyl-d14 (Surr)	73			45 - 120			

**Lab Sample ID: LCSD 570-475857/3-A**  
**Matrix: Water**  
**Analysis Batch: 475795**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Pyrene	20.0	14.6		ug/L		73	70 - 120	3	30

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 570-475857/3-A**  
**Matrix: Water**  
**Analysis Batch: 475795**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
2,4,6-Tribromophenol (Surr)	77		28 - 127
2-Fluorobiphenyl (Surr)	65		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	54		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	75		45 - 120

**Lab Sample ID: LCSD 570-475857/3-A**  
**Matrix: Water**  
**Analysis Batch: 476195**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Analyte	Spike Added	LCS D Result	LCS D Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	11.5		ug/L		58	47 - 120	2	20
2-Methylnaphthalene	20.0	11.3		ug/L		56	43 - 120	0	20
Acenaphthene	20.0	13.3		ug/L		66	60 - 132	2	29
Acenaphthylene	20.0	14.0		ug/L		70	54 - 126	3	45
Anthracene	20.0	15.0		ug/L		75	43 - 120	3	40
Benzo[a]anthracene	20.0	14.5		ug/L		73	42 - 133	3	32
Benzo[a]pyrene	20.0	15.1		ug/L		75	32 - 148	4	43
Benzo[b]fluoranthene	20.0	15.0		ug/L		75	42 - 140	3	43
Benzo[g,h,i]perylene	20.0	15.2		ug/L		76	1 - 195	3	61
Benzo[k]fluoranthene	20.0	15.3		ug/L		76	25 - 146	5	38
Chrysene	20.0	14.2		ug/L		71	44 - 140	3	53
Dibenz(a,h)anthracene	20.0	15.2		ug/L		76	1 - 200	2	75
Fluoranthene	20.0	15.6		ug/L		78	43 - 121	4	40
Fluorene	20.0	14.2		ug/L		71	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	20.0	14.9		ug/L		74	1 - 151	2	60
Naphthalene	20.0	11.4		ug/L		57	36 - 120	2	39
Phenanthrene	20.0	14.6		ug/L		73	65 - 120	3	24

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
2,4,6-Tribromophenol (Surr)	76		28 - 127
2-Fluorobiphenyl (Surr)	69		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	59		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	74		45 - 120

**Lab Sample ID: 380-110669-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 476731**

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.2	10.0		ug/L		52	36 - 120
2-Methylnaphthalene	<0.19		19.2	9.93		ug/L		52	32 - 124
Acenaphthene	<0.19	*-	19.2	10.7		ug/L		56	47 - 145
Acenaphthylene	<0.19		19.2	11.2		ug/L		58	33 - 145
Anthracene	<0.19		19.2	11.6		ug/L		60	27 - 133

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

Lab Sample ID: 380-110669-1 MS

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

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 476731

Prep Batch: 475857

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzo[a]anthracene	<0.19		19.2	12.2		ug/L		63		33 - 143
Benzo[a]pyrene	<0.19		19.2	9.82		ug/L		51		17 - 163
Benzo[b]fluoranthene	<0.19		19.2	10.6		ug/L		55		24 - 159
Benzo[g,h,i]perylene	<0.19		19.2	9.67		ug/L		50		1 - 219
Benzo[k]fluoranthene	<0.19		19.2	10.3		ug/L		54		11 - 162
Chrysene	<0.19		19.2	11.4		ug/L		59		17 - 168
Dibenz(a,h)anthracene	<0.19		19.2	10.2		ug/L		53		1 - 227
Fluoranthene	<0.19		19.2	12.6		ug/L		66		26 - 137
Fluorene	<0.19	F1 *-	19.2	10.9	F1	ug/L		57		59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.2	9.99		ug/L		52		1 - 171
Naphthalene	<0.19		19.2	9.46		ug/L		49		21 - 133
Phenanthrene	<0.19	*-	19.2	11.1		ug/L		58		54 - 120
Pyrene	<0.19	*-	19.2	11.8		ug/L		61		52 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	65		28 - 127
2-Fluorobiphenyl (Surr)	61		31 - 120
2-Fluorophenol (Surr)	46		17 - 120
Nitrobenzene-d5 (Surr)	53		27 - 120
Phenol-d6 (Surr)	32		10 - 120
p-Terphenyl-d14 (Surr)	67		45 - 120

Lab Sample ID: 380-110669-1 MSD

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

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 476731

Prep Batch: 475857

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
1-Methylnaphthalene	<0.19		19.2	10.5		ug/L		55		36 - 120	4	30
2-Methylnaphthalene	<0.19		19.2	10.2		ug/L		53		32 - 124	2	30
Acenaphthene	<0.19	*-	19.2	12.1		ug/L		63		47 - 145	12	48
Acenaphthylene	<0.19		19.2	12.7		ug/L		66		33 - 145	12	74
Anthracene	<0.19		19.2	13.0		ug/L		68		27 - 133	11	66
Benzo[a]anthracene	<0.19		19.2	13.5		ug/L		70		33 - 143	10	53
Benzo[a]pyrene	<0.19		19.2	11.6		ug/L		61		17 - 163	17	72
Benzo[b]fluoranthene	<0.19		19.2	12.0		ug/L		62		24 - 159	12	71
Benzo[g,h,i]perylene	<0.19		19.2	11.8		ug/L		61		1 - 219	20	97
Benzo[k]fluoranthene	<0.19		19.2	11.8		ug/L		61		11 - 162	13	63
Chrysene	<0.19		19.2	12.7		ug/L		66		17 - 168	10	87
Dibenz(a,h)anthracene	<0.19		19.2	12.0		ug/L		63		1 - 227	17	126
Fluoranthene	<0.19		19.2	13.5		ug/L		70		26 - 137	7	66
Fluorene	<0.19	F1 *-	19.2	12.4		ug/L		65		59 - 121	13	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	12.0		ug/L		62		1 - 171	18	99
Naphthalene	<0.19		19.2	9.96		ug/L		52		21 - 133	5	65
Phenanthrene	<0.19	*-	19.2	12.8		ug/L		67		54 - 120	14	39
Pyrene	<0.19	*-	19.2	14.3		ug/L		75		52 - 120	19	49

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	75		28 - 127

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: 380-110669-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 476731**

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)**  
**Prep Type: Total/NA**  
**Prep Batch: 475857**

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	69		31 - 120
2-Fluorophenol (Surr)	48		17 - 120
Nitrobenzene-d5 (Surr)	56		27 - 120
Phenol-d6 (Surr)	33		10 - 120
p-Terphenyl-d14 (Surr)	80		45 - 120

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

**Lab Sample ID: MB 570-478203/11**  
**Matrix: Water**  
**Analysis Batch: 478203**

**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			09/06/24 17:06	1

  

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	76		38 - 134		09/06/24 17:06	1

**Lab Sample ID: LCS 570-478203/10**  
**Matrix: Water**  
**Analysis Batch: 478203**

**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	354		ug/L		89	78 - 120

  

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	88		38 - 134

**Lab Sample ID: LCSD 570-478203/12**  
**Matrix: Water**  
**Analysis Batch: 478203**

**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	362		ug/L		90	78 - 120	2	10

  

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	83		38 - 134

**Lab Sample ID: MRL 570-478203/1003**  
**Matrix: Water**  
**Analysis Batch: 478203**

**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	10.6		ug/L		106	50 - 150



# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: MRL 570-478203/1003**  
**Matrix: Water**  
**Analysis Batch: 478203**

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MRL MRL Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	80		38 - 134

**Lab Sample ID: 380-110669-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 478203**

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Gasoline Range Organics (C4-C13)	<10		400	391		ug/L		98	68 - 122

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

**Lab Sample ID: 380-110669-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 478203**

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Gasoline Range Organics (C4-C13)	<10		400	393		ug/L		98	68 - 122	1	18

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

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

**Lab Sample ID: MB 570-476313/1-A**  
**Matrix: Water**  
**Analysis Batch: 480149**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Diesel Range Organics (C10-C24)	<25		25	ug/L		08/30/24 16:54	09/12/24 15:00	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/30/24 16:54	09/12/24 15:00	1
C8-C18	<25		25	ug/L		08/30/24 16:54	09/12/24 15:00	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
n-Octacosane (Surr)	86		60 - 130	08/30/24 16:54	09/12/24 15:00	1

**Lab Sample ID: LCS 570-476313/2-A**  
**Matrix: Water**  
**Analysis Batch: 480149**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
C10-C28	1600	1280		ug/L		80	56 - 127

<i>Surrogate</i>	<i>%Recovery</i>	<i>LCS LCS Qualifier</i>	<i>Limits</i>
n-Octacosane (Surr)	89		60 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-110669-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 570-476313/3-A**  
**Matrix: Water**  
**Analysis Batch: 480149**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1370		ug/L		86	56 - 127	7	23
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>						
<i>n-Octacosane (Surr)</i>	91		60 - 130						

**Lab Sample ID: MRL 570-476313/4-A**  
**Matrix: Water**  
**Analysis Batch: 480149**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	0.0200	0.0246	J	mg/L		123	50 - 150		
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>						
<i>n-Octacosane (Surr)</i>	91		60 - 130						

**Lab Sample ID: 380-110669-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 480149**

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1660	1450		ug/L		87	70 - 130		
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
<i>n-Octacosane (Surr)</i>	93		60 - 130								

**Lab Sample ID: 380-110669-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 480149**

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)**  
**Prep Type: Total/NA**  
**Prep Batch: 476313**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1670	1370		ug/L		82	70 - 130	6	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
<i>n-Octacosane (Surr)</i>	89		60 - 130								

# QC Association Summary

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

Job ID: 380-110669-1  
 SDG: Weekly

## GC/MS Semi VOA

### Prep Batch: 105975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01	Total/NA	Drinking Water	525.2	
MB 380-105975/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-105975/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-105975/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-105975/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-110542-AI-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-110544-H-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 106221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01	Total/NA	Drinking Water	525.2	105975
MB 380-105975/21-A	Method Blank	Total/NA	Water	525.2	105975
LCS 380-105975/23-A	Lab Control Sample	Total/NA	Water	525.2	105975
LCSD 380-105975/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	105975
MRL 380-105975/22-A	Lab Control Sample	Total/NA	Water	525.2	105975
380-110542-AI-1-A MS	Matrix Spike	Total/NA	Water	525.2	105975
380-110544-H-1-A DU	Duplicate	Total/NA	Water	525.2	105975

### Prep Batch: 106647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01	Total/NA	Drinking Water	525.2	
MB 380-106647/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-106647/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-106647/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-106647/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-110960-M-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-110973-L-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 106999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01	Total/NA	Drinking Water	525.2	106647
MB 380-106647/21-A	Method Blank	Total/NA	Water	525.2	106647
LCS 380-106647/23-A	Lab Control Sample	Total/NA	Water	525.2	106647
LCSD 380-106647/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	106647
MRL 380-106647/22-A	Lab Control Sample	Total/NA	Water	525.2	106647
380-110960-M-1-A MS	Matrix Spike	Total/NA	Water	525.2	106647
380-110973-L-1-A DU	Duplicate	Total/NA	Water	525.2	106647

### Analysis Batch: 475795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-475857/1-A	Method Blank	Total/NA	Water	625.1 SIM	475857
LCS 570-475857/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	475857
LCSD 570-475857/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	475857

### Prep Batch: 475857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01	Total/NA	Drinking Water	625.1	
MB 570-475857/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-475857/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-475857/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1	

# QC Association Summary

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

Job ID: 380-110669-1  
SDG: Weekly

## GC/MS Semi VOA (Continued)

### Prep Batch: 475857 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1	

### Analysis Batch: 476195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-475857/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	475857
LCSD 570-475857/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	475857

### Analysis Batch: 476731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	625.1 SIM	475857
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1 SIM	475857
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625.1 SIM	475857

### Analysis Batch: 478708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	625.1	475857
MB 570-475857/1-A	Method Blank	Total/NA	Water	625.1	475857

## GC VOA

### Analysis Batch: 478203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	
380-110669-2	TB: HALAWA WELLS UNITS 1&2 P1 (331-206-TP065)	Total/NA	Water	8015B GRO LL	
MB 570-478203/11	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-478203/10	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-478203/12	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-478203/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 476313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Total/NA	Drinking Water	3510C	
MB 570-476313/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-476313/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-476313/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-476313/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	3510C	
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	3510C	

### Analysis Batch: 480149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380 110669 1	HALAWA WELLS UNITS 1 & 2 P1 (331 206 TP065)	Total/NA	Drinking Water	8015B	476313
MB 570-476313/1-A	Method Blank	Total/NA	Water	8015B	476313
LCS 570-476313/2-A	Lab Control Sample	Total/NA	Water	8015B	476313
LCSD 570-476313/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	476313
MRL 570-476313/4-A	Lab Control Sample	Total/NA	Water	8015B	476313
380-110669-1 MS	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B	476313
380-110669-1 MSD	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015B	476313

Eurofins Eaton Analytical Pomona

# Lab Chronicle

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

Job ID: 380-110669-1  
 SDG: Weekly

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

**Lab Sample ID: 380-110669-1**

**Date Collected: 08/26/24 10:13**

**Matrix: Drinking Water**

**Date Received: 08/28/24 09:54**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			105975	IQ42	EA POM	08/29/24 14:50
Total/NA	Analysis	525.2		1	106221	UPAC	EA POM	08/30/24 17:51
Total/NA	Prep	525.2			106647	OTM3	EA POM	09/04/24 10:00
Total/NA	Analysis	525.2		1	106999	UPAC	EA POM	09/05/24 16:25
Total/NA	Prep	625.1			475857	PQS1	EET CAL 4	08/30/24 05:18
Total/NA	Analysis	625.1		1	478708	CG	EET CAL 4	09/09/24 14:23
Total/NA	Prep	625.1			475857	PQS1	EET CAL 4	08/30/24 05:18
Total/NA	Analysis	625.1 SIM		1	476731	PQS1	EET CAL 4	09/03/24 14:47
Total/NA	Analysis	8015B GRO LL		1	478203	A9VE	EET CAL 4	09/06/24 18:12
Total/NA	Prep	3510C			476313	U8EU	EET CAL 4	08/30/24 16:57
Total/NA	Analysis	8015B		1	480149	SP9M	EET CAL 4	09/12/24 17:16

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

**Lab Sample ID: 380-110669-2**

**Date Collected: 08/26/24 10:13**

**Matrix: Water**

**Date Received: 08/28/24 09:54**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	478203	A9VE	EET CAL 4	09/06/24 19:22

**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: 380-110669-1  
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
<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
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	09-12-24

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

Eurofins Eaton Analytical Pomona

# Accreditation/Certification Summary

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

Job ID: 380-110669-1  
SDG: Weekly

## Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

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# Method Summary

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

Job ID: 380-110669-1  
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: 380-110669-1  
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-110669-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	08/26/24 10:13	08/28/24 09:54
380-110669-2	TB: HALAWA WELLS UNITS 1&2 P1 (331-206-TP065)	Water	08/26/24 10:13	08/28/24 09:54

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**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Arada, Rachelle	Carrier Tracking No(s): 380-149351 1
Shipping/Receiving		State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State: Hawaii	Job #: 380-110669-1
Address: 2841 Dow Avenue, Suite 100		Preservation Codes:	
City: Tustin	Due Date Requested: 9/11/2024	Analysis Requested:	
State, Zip: CA, 92780	TAT Requested (days):	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
Phone: 714-895-5494 (Tel)	PO #:	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
Email:	WO #:	8015B_DRO_LL_CS3510C_LL_HNL Ranges: C10- C24/C24-C38/C8-C18	
Project Name: RED-HILL	Project #: 38001111	8015B_GRO_LL/5030C (MOD) GRO	
Site: Honolulu BWS Sites	SSOW#:	825.1/625 Prep (MOD) Tentatively Identified	
Sample Identification Client ID (Lab ID)		Compounds (Hold)	
HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-110669-1)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)
HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-110669-1)	8/26/24	10:13 Hawaiian	G
HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-110669-1)	8/26/24	10:13 Hawaiian	G
HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-110669-1)	8/26/24	10:13 Hawaiian	G
TB, HALAWA WELLS UNITS 1&2 (331-206-TP065) (380-110669-1)	8/26/24	10:13 Hawaiian	G
Special Instructions/Note:		Matrix (Water, Smold, Overstabil, Sp+Tissue, Arad)	
Initial volume (500ml) and final volume (2ml). MRLs are needed.		Preservation Code:	
Initial volume (500ml) and final volume (2ml). MRLs are needed.		Water	
Initial volume (500ml) and final volume (2ml). MRLs are needed.		Water	
Initial volume (500ml) and final volume (2ml). MRLs are needed.		Water	
MRLs are needed.		Water	
Total Number of Containers		Total Number of Containers	
7		7	
3		3	
3		3	
2		2	



380-110669 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/business being analyzed, this samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

**Possible Hazard Identification**

Unconfirmed  Return To Client  Disposal By Lab  Archive For  Months

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 8/29/24 14:11 Company: Eurofins

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ  No  No  No

Cooler Temperature(s) °C and Other Remarks: 1.9 / 1.9 SC12



# Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-110669-1

SDG Number: Weekly

**Login Number: 110669**

**List Number: 1**

**Creator: Gerfen, Chris**

**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").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-110669-1

SDG Number: Weekly

**Login Number: 110669**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 08/29/24 04:48 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	