

ANALYTICAL REPORT

PREPARED FOR

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Generated 4/24/2025 9:09:35 PM

JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-144982-1

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 14

QC Association Summary 30

Lab Chronicle 32

Certification Summary 33

Method Summary 35

Sample Summary 36

Chain of Custody 37

Receipt Checklists 39



Definitions/Glossary

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

Job ID: 380-144982-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
B	Analyte was found in the associated method blank.
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
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Case Narrative

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

Job ID: 380-144982-1

Job ID: 380-144982-1

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Job Narrative 380-144982-1

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 4/10/2025 10:24 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 1.1°C and 2.6°C.

GC/MS Semi VOA

Method 625.1_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-556030 and analytical batch 570-557573 recovered outside control limits for the following analytes: 1-Methylnaphthalene and 2-Methylnaphthalene.

Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-146990 and analytical batch 380-147266 was below control limits for Anthracene. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Gasoline Range Organics

Method 8015B_GRO_LL: Received 2 vials for 8015 GRO instead of 3. HALAWA SHAFT VIEWING POOL (380-144982-1)

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-557375 and analytical batch 570-561527 recovered outside control limits for the following analytes: C10-C28. Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

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

Detection Summary

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

☐ No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-144982-2

☐ No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2,4'-DDD	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2,4'-DDE	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2,4'-DDT	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2,4-Dinitrotoluene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2,6-Dinitrotoluene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
2-Methylnaphthalene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
4,4'-DDD	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
4,4'-DDE	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
4,4'-DDT	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Acenaphthene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Acenaphthylene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Acetochlor	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Alachlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
alpha-BHC	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
alpha-Chlordane	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Anthracene	<0.020	F1	0.020	ug/L		04/14/25 07:19	04/15/25 11:43	1
Atrazine	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Benz(a)anthracene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Benzo[a]pyrene	<0.020		0.020	ug/L		04/14/25 07:19	04/15/25 11:43	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		04/14/25 07:19	04/15/25 11:43	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		04/14/25 07:19	04/15/25 11:43	1
beta-BHC	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		04/14/25 07:19	04/15/25 11:43	1
Bromacil	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Butachlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Butylbenzylphthalate	<0.50		0.50	ug/L		04/14/25 07:19	04/15/25 11:43	1
Chlorobenzilate	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Chloroneb	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Chlorothalonil (Draconil, Bravo)	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Chlorpyrifos	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Chrysene	<0.020		0.020	ug/L		04/14/25 07:19	04/15/25 11:43	1
delta-BHC	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Di(2-ethylhexyl)adipate	<0.60	B	0.60	ug/L		04/14/25 07:19	04/15/25 11:43	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Dieldrin	<0.010		0.010	ug/L		04/14/25 07:19	04/15/25 11:43	1
Diethylphthalate	<0.50		0.50	ug/L		04/14/25 07:19	04/15/25 11:43	1
Dimethylphthalate	<0.50		0.50	ug/L		04/14/25 07:19	04/15/25 11:43	1
Di-n-butyl phthalate	<1.0		1.0	ug/L		04/14/25 07:19	04/15/25 11:43	1
Di-n-octyl phthalate	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Endosulfan I (Alpha)	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Endosulfan II (Beta)	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Endosulfan sulfate	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Endrin	<0.010		0.010	ug/L		04/14/25 07:19	04/15/25 11:43	1
Endrin aldehyde	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
EPTC	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Fluoranthene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1

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Client Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
gamma-Chlordane	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Heptachlor	<0.010		0.010	ug/L		04/14/25 07:19	04/15/25 11:43	1
Heptachlor epoxide (isomer B)	<0.010		0.010	ug/L		04/14/25 07:19	04/15/25 11:43	1
Hexachlorobenzene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Isophorone	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Lindane	<0.010		0.010	ug/L		04/14/25 07:19	04/15/25 11:43	1
Malathion	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Methoxychlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Metolachlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Molinate	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Naphthalene	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Parathion	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Pendimethalin (Penoxaline)	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Phenanthrene	<0.040		0.040	ug/L		04/14/25 07:19	04/15/25 11:43	1
Propachlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Pyrene	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Simazine	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Terbacil	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Terbutylazine	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Thiobencarb	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		04/14/25 07:19	04/15/25 11:43	1
trans-Nonachlor	<0.050		0.050	ug/L		04/14/25 07:19	04/15/25 11:43	1
Trifluralin	<0.10		0.10	ug/L		04/14/25 07:19	04/15/25 11:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	04/14/25 07:19	04/15/25 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	04/14/25 07:19	04/15/25 11:43	1
Perylene-d12	90		70 - 130	04/14/25 07:19	04/15/25 11:43	1
Triphenylphosphate	89		70 - 130	04/14/25 07:19	04/15/25 11:43	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	*1	0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
2-Methylnaphthalene	<0.19	*1	0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Acenaphthene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Acenaphthylene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Anthracene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Benzo[a]anthracene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Benzo[a]pyrene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Chrysene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Fluoranthene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Naphthalene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Phenanthrene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1
Pyrene	<0.19		0.19	ug/L		04/11/25 05:20	04/17/25 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	114		28 - 127	04/11/25 05:20	04/17/25 14:23	1
2-Fluorobiphenyl (Surr)	94		31 - 120	04/11/25 05:20	04/17/25 14:23	1
2-Fluorophenol (Surr)	50		17 - 120	04/11/25 05:20	04/17/25 14:23	1
Nitrobenzene-d5 (Surr)	96		27 - 120	04/11/25 05:20	04/17/25 14:23	1
Phenol-d6 (Surr)	29		10 - 120	04/11/25 05:20	04/17/25 14:23	1
p-Terphenyl-d14 (Surr)	98		45 - 120	04/11/25 05:20	04/17/25 14:23	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2-Pentene, 2,4,4-trimethyl-	14	T J N	ug/L		2.86	107-40-4	04/11/25 05:20	04/24/25 09:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	69		33 - 139	04/11/25 05:20	04/24/25 09:59	1
2-Fluorobiphenyl (Surr)	82		33 - 126	04/11/25 05:20	04/24/25 09:59	1
2-Fluorophenol (Surr)	44		12 - 120	04/11/25 05:20	04/24/25 09:59	1
Nitrobenzene-d5 (Surr)	92		36 - 120	04/11/25 05:20	04/24/25 09:59	1
Phenol-d6 (Surr)	29		10 - 120	04/11/25 05:20	04/24/25 09:59	1
p-Terphenyl-d14 (Surr)	88		47 - 131	04/11/25 05:20	04/24/25 09:59	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			04/21/25 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		04/21/25 13:28	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		04/13/25 17:43	04/22/25 03:57	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		04/13/25 17:43	04/22/25 03:57	1
C8-C18	<26		26	ug/L		04/13/25 17:43	04/22/25 03:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	116		60 - 130	04/13/25 17:43	04/22/25 03:57	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-144982-2

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

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			04/21/25 19:44	1

Client Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-144982-2

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134		04/21/25 19:44	1

Action Limit Summary

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

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	<0.050		ug/L	2	0.050	525.2	Total/NA
Atrazine	<0.050		ug/L	3	0.050	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.60		ug/L	6	0.60	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.60	B	ug/L	400	0.60	525.2	Total/NA
Endrin	<0.010		ug/L	2	0.010	525.2	Total/NA
Heptachlor	<0.010		ug/L	0.4	0.010	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.010		ug/L	0.2	0.010	525.2	Total/NA
Hexachlorobenzene	<0.050		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	<0.050		ug/L	50	0.050	525.2	Total/NA
Lindane	<0.010		ug/L	0.2	0.010	525.2	Total/NA
Methoxychlor	<0.050		ug/L	40	0.050	525.2	Total/NA
Simazine	<0.050		ug/L	4	0.050	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: 380-144982-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-144982-1	HALAWA SHAFT VIEWING POC	98	90	89
380-144982-1 MS	HALAWA SHAFT VIEWING POOL	97	89	91
380-145358-B-1-A DU	Duplicate	100	88	88
LCS 380-146990/23-A	Lab Control Sample	97	90	93
LCSD 380-146990/24-A	Lab Control Sample Dup	97	88	94
MB 380-146990/21-A	Method Blank	97	86	90
MRL 380-146990/22-A	Lab Control Sample	96	85	92

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-144982-1	HALAWA SHAFT VIEWING POC	69	82	44	92	29	88

Surrogate Legend

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

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-144982-1	HALAWA SHAFT VIEWING POC	114	94	50	96	29	98
LCS 570-556030/2-A	Lab Control Sample	100	86	55	78	34	97
LCSD 570-556030/3-A	Lab Control Sample Dup	119	106	61	104	40	111
MB 570-556030/1-A	Method Blank	123	99	53	100	32	105

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: 380-144982-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-144982-1	HALAWA SHAFT VIEWING POC	84
380-144982-2	TRIP BLANK	85
380-146090-C-3 MS	Matrix Spike	91
380-146090-C-3 MSD	Matrix Spike Duplicate	92
LCS 570-560653/4	Lab Control Sample	86
LCSD 570-560653/5	Lab Control Sample Dup	85
MB 570-560653/6	Method Blank	86
MRL 570-560653/3	Lab Control Sample	81

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-144829-B-3-A MS	Matrix Spike	118
380-144829-B-3-B MSD	Matrix Spike Duplicate	123
380-144982-1	HALAWA SHAFT VIEWING POOL	116
LCS 570-557375/2-A	Lab Control Sample	127
LCSD 570-557375/3-A	Lab Control Sample Dup	87
MB 570-557375/1-A	Method Blank	99
MRL 570-557375/4-A	Lab Control Sample	80
MRL 570-557375/4-A	Lab Control Sample	58

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MB 380-146990/21-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146990

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2,4'-DDD	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2,4'-DDE	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2,4'-DDT	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
2-Methylnaphthalene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
4,4'-DDD	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
4,4'-DDE	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
4,4'-DDT	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Acenaphthene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Acenaphthylene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Acetochlor	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Alachlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
alpha-BHC	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
alpha-Chlordane	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Anthracene	<0.019		0.019	ug/L		04/14/25 07:19	04/15/25 11:19	1
Atrazine	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Benzo[a]pyrene	<0.019		0.019	ug/L		04/14/25 07:19	04/15/25 11:19	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		04/14/25 07:19	04/15/25 11:19	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		04/14/25 07:19	04/15/25 11:19	1
beta-BHC	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		04/14/25 07:19	04/15/25 11:19	1
Bromacil	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Butachlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/14/25 07:19	04/15/25 11:19	1
Chlorobenzilate	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Chloroneb	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Chlorpyrifos	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Chrysene	<0.019		0.019	ug/L		04/14/25 07:19	04/15/25 11:19	1
delta-BHC	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Di(2-ethylhexyl)adipate	2.10 B		0.58	ug/L		04/14/25 07:19	04/15/25 11:19	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Dieldrin	<0.0097		0.0097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Diethylphthalate	<0.49		0.49	ug/L		04/14/25 07:19	04/15/25 11:19	1
Dimethylphthalate	<0.49		0.49	ug/L		04/14/25 07:19	04/15/25 11:19	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		04/14/25 07:19	04/15/25 11:19	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Endosulfan sulfate	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Endrin	<0.0097		0.0097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Endrin aldehyde	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
EPTC	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1

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QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MB 380-146990/21-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 146990

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Fluorene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
gamma-Chlordane	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Heptachlor	<0.0097		0.0097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Hexachlorobenzene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Isophorone	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Lindane	<0.0097		0.0097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Malathion	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Methoxychlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Metolachlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Molinate	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Naphthalene	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Parathion	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Phenanthrene	<0.039		0.039	ug/L		04/14/25 07:19	04/15/25 11:19	1
Propachlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Pyrene	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Simazine	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Terbacil	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Terbutylazine	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Thiobencarb	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		04/14/25 07:19	04/15/25 11:19	1
trans-Nonachlor	<0.049		0.049	ug/L		04/14/25 07:19	04/15/25 11:19	1
Trifluralin	<0.097		0.097	ug/L		04/14/25 07:19	04/15/25 11:19	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.503	T J	ug/L		5.20	N/A	04/14/25 07:19	04/15/25 11:19	1
Hexadecanamide	3.18	T J N	ug/L		6.93	629-54-9	04/14/25 07:19	04/15/25 11:19	1
13-Docosenamide, (Z)-	6.26	T J N	ug/L		10.24	112-84-5	04/14/25 07:19	04/15/25 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	04/14/25 07:19	04/15/25 11:19	1
Perylene-d12	86		70 - 130	04/14/25 07:19	04/15/25 11:19	1
Triphenylphosphate	90		70 - 130	04/14/25 07:19	04/15/25 11:19	1

Lab Sample ID: LCS 380-146990/23-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.95	1.73		ug/L		89	70 - 130
2,4'-DDD	1.95	1.92		ug/L		99	70 - 130
2,4'-DDE	1.95	1.73		ug/L		89	70 - 130
2,4'-DDT	1.95	1.89		ug/L		97	70 - 130
2,4-Dinitrotoluene	1.95	1.80		ug/L		93	70 - 130

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QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCS 380-146990/23-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	1.95	1.76		ug/L		90	70 - 130
2-Methylnaphthalene	1.95	1.75		ug/L		90	70 - 130
4,4'-DDD	1.95	1.98		ug/L		102	70 - 130
4,4'-DDE	1.95	1.85		ug/L		95	70 - 130
4,4'-DDT	1.95	1.81		ug/L		93	70 - 130
Acenaphthene	1.95	1.85		ug/L		95	70 - 130
Acenaphthylene	1.95	1.75		ug/L		90	70 - 130
Acetochlor	1.95	1.89		ug/L		97	70 - 130
Alachlor	1.95	1.80		ug/L		93	70 - 130
alpha-BHC	1.95	1.78		ug/L		92	70 - 130
alpha-Chlordane	1.95	1.60		ug/L		82	70 - 130
Anthracene	1.95	1.74		ug/L		89	70 - 130
Atrazine	1.95	1.87		ug/L		96	70 - 130
Benz(a)anthracene	1.95	1.81		ug/L		93	70 - 130
Benzo[a]pyrene	1.95	1.84		ug/L		94	70 - 130
Benzo[b]fluoranthene	1.95	2.02		ug/L		104	70 - 130
Benzo[g,h,i]perylene	1.95	1.93		ug/L		99	70 - 130
Benzo[k]fluoranthene	1.95	1.93		ug/L		99	70 - 130
beta-BHC	1.95	1.83		ug/L		94	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.19		ug/L		112	70 - 130
Bromacil	1.95	1.89		ug/L		97	70 - 130
Butachlor	1.95	2.08		ug/L		107	70 - 130
Butylbenzylphthalate	1.95	2.03		ug/L		104	70 - 130
Chlorobenzilate	1.95	1.83		ug/L		94	70 - 130
Chloroneb	1.95	1.66		ug/L		85	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	1.82		ug/L		94	70 - 130
Chlorpyrifos	1.95	1.94		ug/L		100	70 - 130
Chrysene	1.95	1.88		ug/L		97	70 - 130
delta-BHC	1.95	1.87		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.14		ug/L		110	70 - 130
Dibenz(a,h)anthracene	1.95	1.92		ug/L		99	70 - 130
Diclorvos (DDVP)	1.95	1.97		ug/L		101	70 - 130
Dieldrin	1.95	1.74		ug/L		89	70 - 130
Diethylphthalate	1.95	1.87		ug/L		96	70 - 130
Dimethylphthalate	1.95	1.85		ug/L		95	70 - 130
Di-n-butyl phthalate	3.90	3.81		ug/L		98	70 - 130
Di-n-octyl phthalate	1.95	2.12		ug/L		109	70 - 130
Endosulfan I (Alpha)	1.95	1.78		ug/L		91	70 - 130
Endosulfan II (Beta)	1.95	1.85		ug/L		95	70 - 130
Endosulfan sulfate	1.95	1.82		ug/L		93	70 - 130
Endrin	1.95	1.99		ug/L		102	70 - 130
Endrin aldehyde	1.95	1.72		ug/L		88	60 - 130
EPTC	1.95	1.93		ug/L		99	70 - 130
Fluoranthene	1.95	1.90		ug/L		98	70 - 130
Fluorene	1.95	1.82		ug/L		94	70 - 130
gamma-Chlordane	1.95	1.52		ug/L		78	70 - 130
Heptachlor	1.95	2.23		ug/L		115	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.84		ug/L		94	70 - 130
Hexachlorobenzene	1.95	1.55		ug/L		79	70 - 130

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QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCS 380-146990/23-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	1.95	1.63		ug/L		84	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.89		ug/L		97	70 - 130
Isophorone	1.95	2.05		ug/L		105	70 - 130
Lindane	1.95	1.80		ug/L		92	70 - 130
Malathion	1.95	1.94		ug/L		99	70 - 130
Methoxychlor	1.95	2.05		ug/L		105	70 - 130
Metolachlor	1.95	2.11		ug/L		108	70 - 130
Molinate	1.95	1.94		ug/L		100	70 - 130
Naphthalene	1.95	1.89		ug/L		97	70 - 130
Parathion	1.95	1.98		ug/L		102	70 - 130
Pendimethalin (Penoxaline)	1.95	1.69		ug/L		87	70 - 130
Phenanthrene	1.95	1.87		ug/L		96	70 - 130
Propachlor	1.95	1.97		ug/L		101	70 - 130
Pyrene	1.95	1.93		ug/L		99	70 - 130
Simazine	1.95	1.94		ug/L		100	70 - 130
Terbacil	1.95	2.22		ug/L		114	70 - 130
Terbutylazine	1.95	1.88		ug/L		96	70 - 130
Thiobencarb	1.95	2.20		ug/L		113	70 - 130
trans-Nonachlor	1.95	1.59		ug/L		82	70 - 130
Trifluralin	1.95	1.52		ug/L		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	93		70 - 130

Lab Sample ID: LCSD 380-146990/24-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.95	1.79		ug/L		92	70 - 130	3	20
2,4'-DDD	1.95	1.96		ug/L		101	70 - 130	2	20
2,4'-DDE	1.95	1.76		ug/L		91	70 - 130	2	20
2,4'-DDT	1.95	1.91		ug/L		98	70 - 130	1	20
2,4-Dinitrotoluene	1.95	1.78		ug/L		91	70 - 130	1	20
2,6-Dinitrotoluene	1.95	1.71		ug/L		88	70 - 130	3	20
2-Methylnaphthalene	1.95	1.80		ug/L		93	70 - 130	3	20
4,4'-DDD	1.95	2.03		ug/L		104	70 - 130	2	20
4,4'-DDE	1.95	1.89		ug/L		97	70 - 130	2	20
4,4'-DDT	1.95	1.83		ug/L		94	70 - 130	1	20
Acenaphthene	1.95	1.89		ug/L		97	70 - 130	3	20
Acenaphthylene	1.95	1.81		ug/L		93	70 - 130	3	20
Acetochlor	1.95	1.93		ug/L		99	70 - 130	2	20
Alachlor	1.95	1.88		ug/L		96	70 - 130	4	20
alpha-BHC	1.95	1.83		ug/L		94	70 - 130	3	20
alpha-Chlordane	1.95	1.62		ug/L		83	70 - 130	2	20
Anthracene	1.95	1.80		ug/L		92	70 - 130	3	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-146990/24-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Atrazine	1.95	1.93		ug/L		99	70 - 130	3	20
Benz(a)anthracene	1.95	1.84		ug/L		94	70 - 130	2	20
Benzo[a]pyrene	1.95	1.90		ug/L		98	70 - 130	3	20
Benzo[b]fluoranthene	1.95	2.09		ug/L		108	70 - 130	4	20
Benzo[g,h,i]perylene	1.95	2.01		ug/L		103	70 - 130	4	20
Benzo[k]fluoranthene	1.95	1.96		ug/L		101	70 - 130	2	20
beta-BHC	1.95	1.89		ug/L		97	70 - 130	3	20
Bis(2-ethylhexyl) phthalate	1.95	2.22		ug/L		114	70 - 130	2	20
Bromacil	1.95	1.87		ug/L		96	70 - 130	1	20
Butachlor	1.95	2.16		ug/L		111	70 - 130	4	20
Butylbenzylphthalate	1.95	2.09		ug/L		107	70 - 130	3	20
Chlorobenzilate	1.95	1.82		ug/L		94	70 - 130	0	20
Chloroneb	1.95	1.85		ug/L		95	70 - 130	11	20
Chlorothalonil (Draconil, Bravo)	1.95	1.88		ug/L		96	70 - 130	3	20
Chlorpyrifos	1.95	1.96		ug/L		101	70 - 130	1	20
Chrysene	1.95	1.92		ug/L		99	70 - 130	2	20
delta-BHC	1.95	1.90		ug/L		97	70 - 130	1	20
Di(2-ethylhexyl)adipate	1.95	2.16		ug/L		111	70 - 130	1	20
Dibenz(a,h)anthracene	1.95	1.96		ug/L		100	70 - 130	2	20
Diclorvos (DDVP)	1.95	1.99		ug/L		102	70 - 130	1	20
Dieldrin	1.95	1.80		ug/L		93	70 - 130	4	20
Diethylphthalate	1.95	1.93		ug/L		99	70 - 130	3	20
Dimethylphthalate	1.95	1.89		ug/L		97	70 - 130	2	20
Di-n-butyl phthalate	3.89	3.88		ug/L		100	70 - 130	2	20
Di-n-octyl phthalate	1.95	2.16		ug/L		111	70 - 130	2	20
Endosulfan I (Alpha)	1.95	1.85		ug/L		95	70 - 130	4	20
Endosulfan II (Beta)	1.95	1.94		ug/L		99	70 - 130	4	20
Endosulfan sulfate	1.95	1.90		ug/L		98	70 - 130	5	20
Endrin	1.95	2.03		ug/L		104	70 - 130	2	20
Endrin aldehyde	1.95	1.76		ug/L		91	60 - 130	3	20
EPTC	1.95	2.00		ug/L		103	70 - 130	4	20
Fluoranthene	1.95	1.94		ug/L		100	70 - 130	2	20
Fluorene	1.95	1.88		ug/L		97	70 - 130	3	20
gamma-Chlordane	1.95	1.56		ug/L		80	70 - 130	2	20
Heptachlor	1.95	2.31		ug/L		119	70 - 130	3	20
Heptachlor epoxide (isomer B)	1.95	1.90		ug/L		98	70 - 130	3	20
Hexachlorobenzene	1.95	1.59		ug/L		81	70 - 130	2	20
Hexachlorocyclopentadiene	1.95	1.65		ug/L		85	70 - 130	1	20
Indeno[1,2,3-cd]pyrene	1.95	1.92		ug/L		99	70 - 130	1	20
Isophorone	1.95	2.09		ug/L		107	70 - 130	2	20
Lindane	1.95	1.82		ug/L		94	70 - 130	1	20
Malathion	1.95	1.99		ug/L		102	70 - 130	3	20
Methoxychlor	1.95	2.06		ug/L		106	70 - 130	1	20
Metolachlor	1.95	2.17		ug/L		111	70 - 130	3	20
Molinate	1.95	2.01		ug/L		103	70 - 130	3	20
Naphthalene	1.95	1.94		ug/L		100	70 - 130	3	20
Parathion	1.95	2.04		ug/L		105	70 - 130	3	20
Pendimethalin (Penoxaline)	1.95	1.74		ug/L		89	70 - 130	3	20
Phenanthrene	1.95	1.94		ug/L		99	70 - 130	3	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-146990/24-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Propachlor	1.95	2.04		ug/L		105	70 - 130	4	20
Pyrene	1.95	1.97		ug/L		101	70 - 130	2	20
Simazine	1.95	1.97		ug/L		101	70 - 130	2	20
Terbacil	1.95	2.27		ug/L		117	70 - 130	2	20
Terbutylazine	1.95	1.91		ug/L		98	70 - 130	2	20
Thiobencarb	1.95	2.25		ug/L		116	70 - 130	2	20
trans-Nonachlor	1.95	1.61		ug/L		83	70 - 130	1	20
Trifluralin	1.95	1.57		ug/L		81	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	94		70 - 130

Lab Sample ID: MRL 380-146990/22-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0974	0.101		ug/L		104	50 - 150
2,4'-DDD	0.0974	0.0824	J	ug/L		85	50 - 150
2,4'-DDE	0.0974	0.0867	J	ug/L		89	50 - 150
2,4'-DDT	0.0974	0.0882	J	ug/L		91	50 - 150
2,4-Dinitrotoluene	0.0974	0.0920	J	ug/L		94	50 - 150
2,6-Dinitrotoluene	0.0974	0.0980		ug/L		101	50 - 150
2-Methylnaphthalene	0.0974	0.0946	J	ug/L		97	50 - 150
4,4'-DDD	0.0974	0.0963	J	ug/L		99	50 - 150
4,4'-DDE	0.0974	0.0853	J	ug/L		88	50 - 150
4,4'-DDT	0.0974	0.100		ug/L		103	50 - 150
Acenaphthene	0.0974	0.0805	J	ug/L		83	50 - 150
Acenaphthylene	0.0974	0.0843	J	ug/L		87	50 - 150
Acetochlor	0.0974	0.105		ug/L		108	50 - 150
Alachlor	0.0487	0.0465	J	ug/L		95	50 - 150
alpha-BHC	0.0974	0.0911	J	ug/L		94	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		79	50 - 150
Anthracene	0.0195	0.0194		ug/L		100	50 - 150
Atrazine	0.0487	<0.047		ug/L		94	50 - 150
Benz(a)anthracene	0.0487	0.0509		ug/L		105	50 - 150
Benzo[a]pyrene	0.0195	0.0218		ug/L		112	50 - 150
Benzo[b]fluoranthene	0.0195	0.0202		ug/L		104	50 - 150
Benzo[g,h,i]perylene	0.0487	0.0424	J	ug/L		87	50 - 150
Benzo[k]fluoranthene	0.0195	0.0174	J	ug/L		89	50 - 150
beta-BHC	0.0974	0.0946	J	ug/L		97	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.591		ug/L		101	50 - 150
Bromacil	0.0974	0.105		ug/L		108	50 - 150
Butachlor	0.0487	0.0514		ug/L		105	50 - 150
Butylbenzylphthalate	0.487	0.521		ug/L		107	50 - 150
Chlorobenzilate	0.0974	0.0920	J	ug/L		94	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MRL 380-146990/22-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloroneb	0.0974	0.103		ug/L		106	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0974	0.0826	J	ug/L		85	50 - 150
Chlorpyrifos	0.0487	0.0460	J	ug/L		94	50 - 150
Chrysene	0.0195	0.0200		ug/L		103	50 - 150
delta-BHC	0.0974	0.0916	J	ug/L		94	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.630		ug/L		108	50 - 150
Dibenz(a,h)anthracene	0.0487	0.0422	J	ug/L		87	50 - 150
Diclorvos (DDVP)	0.0487	0.0560		ug/L		115	50 - 150
Dieldrin	0.00974	0.0110		ug/L		112	50 - 150
Diethylphthalate	0.487	0.481	J	ug/L		99	50 - 150
Dimethylphthalate	0.487	0.465	J	ug/L		96	50 - 150
Di-n-butyl phthalate	0.487	0.485	J	ug/L		100	49 - 243
Di-n-octyl phthalate	0.0974	0.0865	J	ug/L		89	50 - 150
Endosulfan I (Alpha)	0.0974	0.0943	J	ug/L		97	50 - 150
Endosulfan II (Beta)	0.0974	0.0995		ug/L		102	50 - 150
Endosulfan sulfate	0.0974	0.0895	J	ug/L		92	50 - 150
Endrin	0.00974	0.0101		ug/L		104	50 - 150
Endrin aldehyde	0.0974	0.0824	J	ug/L		85	50 - 150
EPTC	0.0974	0.0885	J	ug/L		91	50 - 150
Fluoranthene	0.0974	0.0943	J	ug/L		97	50 - 150
Fluorene	0.0487	<0.049		ug/L		95	50 - 150
gamma-Chlordane	0.0244	<0.020		ug/L		76	50 - 150
Heptachlor	0.00974	0.0122		ug/L		125	50 - 150
Heptachlor epoxide (isomer B)	0.00974	0.00946	J	ug/L		97	50 - 150
Hexachlorobenzene	0.0487	0.0414	J	ug/L		85	50 - 150
Hexachlorocyclopentadiene	0.0487	0.0382	J	ug/L		78	50 - 150
Indeno[1,2,3-cd]pyrene	0.0487	0.0462	J	ug/L		95	50 - 150
Isophorone	0.0974	0.121		ug/L		124	50 - 150
Lindane	0.00974	0.0128		ug/L		131	50 - 150
Malathion	0.0974	0.103		ug/L		106	50 - 150
Methoxychlor	0.0487	0.0620		ug/L		127	50 - 150
Metolachlor	0.0487	0.0529		ug/L		109	50 - 150
Molinate	0.0974	0.100		ug/L		103	50 - 150
Naphthalene	0.0974	0.0904	J	ug/L		93	50 - 150
Parathion	0.0974	0.0906	J	ug/L		93	50 - 150
Pendimethalin (Penoxaline)	0.0974	0.0841	J	ug/L		86	50 - 150
Phenanthrene	0.0390	0.0332	J	ug/L		85	50 - 150
Propachlor	0.0487	0.0494		ug/L		101	50 - 150
Pyrene	0.0487	0.0472	J	ug/L		97	50 - 150
Simazine	0.0487	0.0438	J	ug/L		90	50 - 150
Terbacil	0.0974	0.0911	J	ug/L		93	50 - 150
Terbutylazine	0.0974	0.0943	J	ug/L		97	50 - 150
Thiobencarb	0.0974	0.103		ug/L		106	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		73	50 - 150
Trifluralin	0.0974	0.0824	J	ug/L		85	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MRL 380-146990/22-A

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 146990

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Perylene-d12	85		70 - 130
Triphenylphosphate	92		70 - 130

Lab Sample ID: 380-144982-1 MS

Matrix: Water

Analysis Batch: 147266

Client Sample ID: HALAWA SHAFT VIEWING POOL

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.10		1.93	1.78		ug/L		92	70 - 130
2,4'-DDD	<0.10		1.93	1.87		ug/L		97	70 - 130
2,4'-DDE	<0.10		1.93	1.65		ug/L		85	70 - 130
2,4'-DDT	<0.10		1.93	1.76		ug/L		91	70 - 130
2,4-Dinitrotoluene	<0.10		1.93	1.93		ug/L		100	70 - 130
2,6-Dinitrotoluene	<0.10		1.93	1.81		ug/L		94	70 - 130
2-Methylnaphthalene	<0.10		1.93	1.79		ug/L		93	70 - 130
4,4'-DDD	<0.10		1.93	1.93		ug/L		100	70 - 130
4,4'-DDE	<0.10		1.93	1.67		ug/L		87	70 - 130
4,4'-DDT	<0.10		1.93	1.64		ug/L		85	70 - 130
Acenaphthene	<0.10		1.93	1.87		ug/L		97	70 - 130
Acenaphthylene	<0.10		1.93	1.83		ug/L		95	70 - 130
Acetochlor	<0.10		1.93	1.94		ug/L		101	70 - 130
Alachlor	<0.050		1.93	1.85		ug/L		96	70 - 130
alpha-BHC	<0.10		1.93	1.86		ug/L		97	70 - 130
alpha-Chlordane	<0.050		1.93	1.56		ug/L		81	70 - 130
Anthracene	<0.020	F1	1.93	1.07	F1	ug/L		56	70 - 130
Atrazine	<0.050		1.93	1.93		ug/L		100	70 - 130
Benz(a)anthracene	<0.050		1.93	1.65		ug/L		85	70 - 130
Benzo[a]pyrene	<0.020		1.93	1.66		ug/L		86	70 - 130
Benzo[b]fluoranthene	<0.020		1.93	2.14		ug/L		111	70 - 130
Benzo[g,h,i]perylene	<0.050		1.93	1.83		ug/L		95	70 - 130
Benzo[k]fluoranthene	<0.020		1.93	1.91		ug/L		99	70 - 130
beta-BHC	<0.10		1.93	1.90		ug/L		98	70 - 130
Bis(2-ethylhexyl) phthalate	<0.60		1.93	1.83		ug/L		95	70 - 130
Bromacil	<0.10		1.93	1.91		ug/L		99	70 - 130
Butachlor	<0.050		1.93	2.12		ug/L		110	70 - 130
Butylbenzylphthalate	<0.50		1.93	2.08		ug/L		108	70 - 130
Chlorobenzilate	<0.10		1.93	1.88		ug/L		98	70 - 130
Chloroneb	<0.10		1.93	1.81		ug/L		94	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.10		1.93	1.86		ug/L		97	70 - 130
Chlorpyrifos	<0.050		1.93	1.98		ug/L		103	70 - 130
Chrysene	<0.020		1.93	1.96		ug/L		102	70 - 130
delta-BHC	<0.10		1.93	1.89		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	<0.60	B	1.93	1.79		ug/L		93	70 - 130
Dibenz(a,h)anthracene	<0.050		1.93	1.77		ug/L		92	70 - 130
Diclorvos (DDVP)	<0.050		1.93	2.01		ug/L		104	70 - 130
Dieldrin	<0.010		1.93	1.79		ug/L		93	70 - 130
Diethylphthalate	<0.50		1.93	1.93		ug/L		100	70 - 130
Dimethylphthalate	<0.50		1.93	1.90		ug/L		99	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: 380-144982-1 MS

Matrix: Water

Analysis Batch: 147266

Client Sample ID: HALAWA SHAFT VIEWING POOL

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	<1.0		3.85	3.89		ug/L		101	70 - 130
Di-n-octyl phthalate	<0.10		1.93	1.68		ug/L		87	70 - 130
Endosulfan I (Alpha)	<0.10		1.93	1.79		ug/L		93	70 - 130
Endosulfan II (Beta)	<0.10		1.93	1.86		ug/L		96	70 - 130
Endosulfan sulfate	<0.10		1.93	1.84		ug/L		96	70 - 130
Endrin	<0.010		1.93	1.99		ug/L		104	70 - 130
Endrin aldehyde	<0.10		1.93	1.48		ug/L		77	60 - 130
EPTC	<0.10		1.93	1.97		ug/L		102	70 - 130
Fluoranthene	<0.10		1.93	1.94		ug/L		101	70 - 130
Fluorene	<0.050		1.93	1.88		ug/L		98	70 - 130
gamma-Chlordane	<0.050		1.93	1.49		ug/L		78	70 - 130
Heptachlor	<0.010		1.93	2.29		ug/L		119	70 - 130
Heptachlor epoxide (isomer B)	<0.010		1.93	1.87		ug/L		97	70 - 130
Hexachlorobenzene	<0.050		1.93	1.57		ug/L		82	70 - 130
Hexachlorocyclopentadiene	<0.050		1.93	1.69		ug/L		88	70 - 130
Indeno[1,2,3-cd]pyrene	<0.050		1.93	1.80		ug/L		94	70 - 130
Isophorone	<0.10		1.93	2.09		ug/L		109	70 - 130
Lindane	<0.010		1.93	1.87		ug/L		97	70 - 130
Malathion	<0.10		1.93	1.97		ug/L		102	70 - 130
Methoxychlor	<0.050		1.93	2.32		ug/L		120	70 - 130
Metolachlor	<0.050		1.93	2.14		ug/L		111	70 - 130
Molinate	<0.10		1.93	2.01		ug/L		104	70 - 130
Naphthalene	<0.10		1.93	1.93		ug/L		100	70 - 130
Parathion	<0.10		1.93	2.11		ug/L		109	70 - 130
Pendimethalin (Penoxaline)	<0.10		1.93	1.85		ug/L		96	70 - 130
Phenanthrene	<0.040		1.93	1.91		ug/L		99	70 - 130
Propachlor	<0.050		1.93	2.07		ug/L		108	70 - 130
Pyrene	<0.050		1.93	1.95		ug/L		101	70 - 130
Simazine	<0.050		1.93	1.97		ug/L		102	70 - 130
Terbacil	<0.10		1.93	2.35		ug/L		122	70 - 130
Terbutylazine	<0.10		1.93	1.93		ug/L		100	70 - 130
Thiobencarb	<0.10		1.93	2.24		ug/L		116	70 - 130
trans-Nonachlor	<0.050		1.93	1.51		ug/L		78	70 - 130
Trifluralin	<0.10		1.93	1.62		ug/L		84	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	89		70 - 130
Triphenylphosphate	91		70 - 130

Lab Sample ID: 380-145358-B-1-A DU

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
2,4'-DDD	<0.097		<0.098		ug/L		NC	20
2,4'-DDE	<0.097		<0.098		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: 380-145358-B-1-A DU

Matrix: Water

Analysis Batch: 147266

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 146990

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
2,4'-DDT	<0.097		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
4,4'-DDD	<0.097		<0.098		ug/L		NC	20
4,4'-DDE	<0.097		<0.098		ug/L		NC	20
4,4'-DDT	<0.097		<0.098		ug/L		NC	20
Acenaphthene	<0.097		<0.098		ug/L		NC	20
Acenaphthylene	<0.097		<0.098		ug/L		NC	20
Acetochlor	<0.097		<0.098		ug/L		NC	20
Alachlor	<0.048		<0.049		ug/L		NC	20
alpha-BHC	<0.097		<0.098		ug/L		NC	20
alpha-Chlordane	<0.048		<0.049		ug/L		NC	20
Anthracene	<0.019		<0.020		ug/L		NC	20
Atrazine	<0.048		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.020		ug/L		NC	20
beta-BHC	<0.097		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.59		ug/L		NC	20
Bromacil	<0.097		<0.098		ug/L		NC	20
Butachlor	<0.048		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.49		ug/L		NC	20
Chlorobenzilate	<0.097		<0.098		ug/L		NC	20
Chloroneb	<0.097		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.098		ug/L		NC	20
Chlorpyrifos	<0.048		<0.049		ug/L		NC	20
Chrysene	<0.019		<0.020		ug/L		NC	20
delta-BHC	<0.097		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58	B	<0.59	B	ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.049		ug/L		NC	20
Dieldrin	<0.0097		<0.0098		ug/L		NC	20
Diethylphthalate	<0.48		<0.49		ug/L		NC	20
Dimethylphthalate	<0.48		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.098		ug/L		NC	20
Endrin	<0.0097		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.097		<0.098		ug/L		NC	20
EPTC	<0.097		<0.098		ug/L		NC	20
Fluoranthene	<0.097		<0.098		ug/L		NC	20
Fluorene	<0.048		<0.049		ug/L		NC	20
gamma-Chlordane	<0.048		<0.049		ug/L		NC	20
Heptachlor	<0.0097		<0.0098		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: 380-145358-B-1-A DU
Matrix: Water
Analysis Batch: 147266

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 146990

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Heptachlor epoxide (isomer B)	<0.0097		<0.0098		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.049		ug/L		NC	20
Isophorone	<0.097		<0.098		ug/L		NC	20
Lindane	<0.0097		<0.0098		ug/L		NC	20
Malathion	<0.097		<0.098		ug/L		NC	20
Methoxychlor	<0.048		<0.049		ug/L		NC	20
Metolachlor	<0.048		<0.049		ug/L		NC	20
Molinate	<0.097		<0.098		ug/L		NC	20
Naphthalene	<0.097		<0.098		ug/L		NC	20
Parathion	<0.097		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.098		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.049		ug/L		NC	20
Pyrene	<0.048		<0.049		ug/L		NC	20
Simazine	<0.048		<0.049		ug/L		NC	20
Terbacil	<0.097		<0.098		ug/L		NC	20
Terbutylazine	<0.097		<0.098		ug/L		NC	20
Thiobencarb	<0.097		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.20		ug/L		NC	20
trans-Nonachlor	<0.048		<0.049		ug/L		NC	20
Trifluralin	<0.097		<0.098		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	88		70 - 130

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

Lab Sample ID: MB 570-556030/1-A
Matrix: Water
Analysis Batch: 557573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 556030

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
2-Methylnaphthalene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Acenaphthene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Acenaphthylene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Anthracene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Benzo[a]anthracene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Benzo[a]pyrene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Chrysene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Fluoranthene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MB 570-556030/1-A

Matrix: Water

Analysis Batch: 557573

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 556030

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Naphthalene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Phenanthrene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1
Pyrene	<0.20		0.20	ug/L		04/10/25 05:24	04/14/25 13:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	123		28 - 127	04/10/25 05:24	04/14/25 13:17	1
2-Fluorobiphenyl (Surr)	99		31 - 120	04/10/25 05:24	04/14/25 13:17	1
2-Fluorophenol (Surr)	53		17 - 120	04/10/25 05:24	04/14/25 13:17	1
Nitrobenzene-d5 (Surr)	100		27 - 120	04/10/25 05:24	04/14/25 13:17	1
Phenol-d6 (Surr)	32		10 - 120	04/10/25 05:24	04/14/25 13:17	1
p-Terphenyl-d14 (Surr)	105		45 - 120	04/10/25 05:24	04/14/25 13:17	1

Lab Sample ID: LCS 570-556030/2-A

Matrix: Water

Analysis Batch: 557573

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 556030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.9		ug/L		69	47 - 120
2-Methylnaphthalene	20.0	15.8		ug/L		79	43 - 120
Acenaphthene	20.0	16.6		ug/L		83	60 - 132
Acenaphthylene	20.0	16.1		ug/L		81	54 - 126
Anthracene	20.0	18.3		ug/L		91	43 - 120
Benzo[a]anthracene	20.0	18.2		ug/L		91	42 - 133
Benzo[a]pyrene	20.0	18.8		ug/L		94	32 - 148
Benzo[b]fluoranthene	20.0	19.1		ug/L		96	42 - 140
Benzo[g,h,i]perylene	20.0	18.5		ug/L		93	1 - 195
Benzo[k]fluoranthene	20.0	18.1		ug/L		91	25 - 146
Chrysene	20.0	17.8		ug/L		89	44 - 140
Dibenz(a,h)anthracene	20.0	18.5		ug/L		92	1 - 200
Fluoranthene	20.0	20.7		ug/L		103	43 - 121
Fluorene	20.0	16.8		ug/L		84	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	19.5		ug/L		97	1 - 151
Naphthalene	20.0	14.2		ug/L		71	36 - 120
Phenanthrene	20.0	18.2		ug/L		91	65 - 120
Pyrene	20.0	18.6		ug/L		93	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	100		28 - 127
2-Fluorobiphenyl (Surr)	86		31 - 120
2-Fluorophenol (Surr)	55		17 - 120
Nitrobenzene-d5 (Surr)	78		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	97		45 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCSD 570-556030/3-A

Matrix: Water

Analysis Batch: 557573

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	19.8	*1	ug/L		99	47 - 120	35	20
2-Methylnaphthalene	20.0	22.2	*1	ug/L		111	43 - 120	34	20
Acenaphthene	20.0	20.7		ug/L		104	60 - 132	22	29
Acenaphthylene	20.0	19.7		ug/L		98	54 - 126	20	45
Anthracene	20.0	22.0		ug/L		110	43 - 120	19	40
Benzo[a]anthracene	20.0	21.2		ug/L		106	42 - 133	15	32
Benzo[a]pyrene	20.0	20.1		ug/L		101	32 - 148	7	43
Benzo[b]fluoranthene	20.0	21.1		ug/L		105	42 - 140	10	43
Benzo[g,h,i]perylene	20.0	22.3		ug/L		112	1 - 195	18	61
Benzo[k]fluoranthene	20.0	20.9		ug/L		105	25 - 146	14	38
Chrysene	20.0	20.5		ug/L		102	44 - 140	14	53
Dibenz(a,h)anthracene	20.0	23.4		ug/L		117	1 - 200	23	75
Fluoranthene	20.0	23.8		ug/L		119	43 - 121	14	40
Fluorene	20.0	20.7		ug/L		104	70 - 120	21	23
Indeno[1,2,3-cd]pyrene	20.0	23.9		ug/L		120	1 - 151	21	60
Naphthalene	20.0	19.7		ug/L		99	36 - 120	33	39
Phenanthrene	20.0	22.1		ug/L		110	65 - 120	19	24
Pyrene	20.0	22.4		ug/L		112	70 - 120	19	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	119		28 - 127
2-Fluorobiphenyl (Surr)	106		31 - 120
2-Fluorophenol (Surr)	61		17 - 120
Nitrobenzene-d5 (Surr)	104		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	111		45 - 120

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

Lab Sample ID: MB 570-560653/6

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Date: 06/06/25

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			04/21/25 12:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		04/21/25 12:53	1

Lab Sample ID: LCS 570-560653/4

Matrix: Water

Analysis Batch: 560653

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	373		ug/L		93	78 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: LCS 570-560653/4

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		38 - 134

Lab Sample ID: LCSD 570-560653/5

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (C4-C13)			400	370		ug/L		92	78 - 120	1	10

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		38 - 134

Lab Sample ID: MRL 570-560653/3

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

			Spike	MRL	MRL				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (C4-C13)			10.0	11.3		ug/L		113	50 - 150		

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		38 - 134

Lab Sample ID: 380-146090-C-3 MS

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	396		ug/L		99	68 - 122		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		38 - 134

Lab Sample ID: 380-146090-C-3 MSD

Matrix: Water

Analysis Batch: 560653

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (C4-C13)	<10		400	377		ug/L		94	68 - 122	5	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		38 - 134

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: MB 570-557375/1-A

Matrix: Water

Analysis Batch: 561527

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 557375

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		04/13/25 17:43	04/23/25 00:34	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		04/13/25 17:43	04/23/25 00:34	1
C8-C18	<25		25	ug/L		04/13/25 17:43	04/23/25 00:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	99		60 - 130			04/13/25 17:43	04/23/25 00:34	1

Lab Sample ID: LCS 570-557375/2-A

Matrix: Water

Analysis Batch: 560912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
C10-C28	1600	1480		ug/L		92	56 - 127	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
n-Octacosane (Surr)	127		60 - 130					

Lab Sample ID: LCSD 570-557375/3-A

Matrix: Water

Analysis Batch: 561527

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1120	*1	ug/L		70	56 - 127	27	23
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	87		60 - 130						

Lab Sample ID: MRL 570-557375/4-A

Matrix: Water

Analysis Batch: 560912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
C10-C28	0.0200	<0.020		mg/L		97	50 - 150	
Surrogate	MRL %Recovery	MRL Qualifier	Limits					
n-Octacosane (Surr)	80		60 - 130					

Lab Sample ID: MRL 570-557375/4-A

Matrix: Water

Analysis Batch: 561527

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
C10-C28	0.0200	<0.020		mg/L		75	50 - 150	
Surrogate	MRL %Recovery	MRL Qualifier	Limits					
n-Octacosane (Surr)	58		60 - 130					

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-144982-1
SDG: Weekly

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

Lab Sample ID: 380-144829-B-3-A MS

Matrix: Water

Analysis Batch: 560912

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<25	*1	1630	1380		ug/L		85	70 - 130
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
n-Octacosane (Surr)	118		60 - 130						

Lab Sample ID: 380-144829-B-3-B MSD

Matrix: Water

Analysis Batch: 560912

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 557375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<25	*1	1630	1490		ug/L		91	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
n-Octacosane (Surr)	123		60 - 130								

QC Association Summary

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

Job ID: 380-144982-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 146990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-146990/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-146990/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-146990/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-146990/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-144982-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
380-145358-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 147266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	146990
MB 380-146990/21-A	Method Blank	Total/NA	Water	525.2	146990
LCS 380-146990/23-A	Lab Control Sample	Total/NA	Water	525.2	146990
LCSD 380-146990/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	146990
MRL 380-146990/22-A	Lab Control Sample	Total/NA	Water	525.2	146990
380-144982-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	146990
380-145358-B-1-A DU	Duplicate	Total/NA	Water	525.2	146990

Prep Batch: 556030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-556030/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-556030/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-556030/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 557573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-556030/1-A	Method Blank	Total/NA	Water	625.1 SIM	556030
LCS 570-556030/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	556030
LCSD 570-556030/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	556030

Analysis Batch: 559136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	556030

Analysis Batch: 562270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	556030

GC VOA

Analysis Batch: 560653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-144982-2	TRIP BLANK	Total/NA	Water	8015B GRO LL	
MB 570-560653/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-560653/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-560653/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-560653/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-146090-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-146090-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-144982-1
SDG: Weekly

GC Semi VOA

Prep Batch: 557375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-557375/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-557375/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-557375/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-557375/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-144829-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-144829-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 560912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-144982-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	557375
LCS 570-557375/2-A	Lab Control Sample	Total/NA	Water	8015B	557375
MRL 570-557375/4-A	Lab Control Sample	Total/NA	Water	8015B	557375
380-144829-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	557375
380-144829-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	557375

Analysis Batch: 561527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-557375/1-A	Method Blank	Total/NA	Water	8015B	557375
LCSD 570-557375/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	557375
MRL 570-557375/4-A	Lab Control Sample	Total/NA	Water	8015B	557375

Lab Chronicle

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

Job ID: 380-144982-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-144982-1

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			146990	OTM3	EA POM	04/14/25 07:19
Total/NA	Analysis	525.2		1	147266	UPAC	EA POM	04/15/25 11:43
Total/NA	Prep	625.1			556030	H1SH	EET CAL 4	04/11/25 05:20
Total/NA	Analysis	625.1		1	562270	PQS1	EET CAL 4	04/24/25 09:59
Total/NA	Prep	625.1			556030	H1SH	EET CAL 4	04/11/25 05:20
Total/NA	Analysis	625.1 SIM		1	559136	PQS1	EET CAL 4	04/17/25 14:23
Total/NA	Analysis	8015B GRO LL		1	560653	A9VE	EET CAL 4	04/21/25 13:28
Total/NA	Prep	3510C			557375	H6FE	EET CAL 4	04/13/25 17:43
Total/NA	Analysis	8015B		1	560912	H6FE	EET CAL 4	04/22/25 03:57

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-144982-2

Date Collected: 04/08/25 10:00

Matrix: Water

Date Received: 04/10/25 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	560653	A9VE	EET CAL 4	04/21/25 19:44

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: 380-144982-1
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	01-31-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Water	1-Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4' DDT
525.2	525.2	Water	Acetochlor
525.2	525.2	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-25

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-144982-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

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

Method Summary

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

Job ID: 380-144982-1
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: 380-144982-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-144982-1	HALAWA SHAFT VIEWING POOL	Water	04/08/25 10:00	04/10/25 10:24
380-144982-2	TRIP BLANK	Water	04/08/25 10:00	04/10/25 10:24

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

Ver 04/02/2024



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-144982-1

SDG Number: Weekly

Login Number: 144982

List Number: 1

Creator: Ngo, Theodore

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.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	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: 380-144982-1

SDG Number: Weekly

Login Number: 144982

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 04/10/25 07:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	