

ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-139220-1

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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Definitions/Glossary

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

Job ID: 380-139220-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high 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.
☼	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: 380-139220-1

Job ID: 380-139220-1

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Job Narrative 380-139220-1

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 3/6/2025 10:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 0.4°C.

GC/MS Semi VOA

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-542082. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-542082. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-139220-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-139220-2

No Detections.

- 1
- 2
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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: 380-139220-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

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		03/09/25 08:38	03/10/25 13:49	1
2,4'-DDD	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
2,4'-DDE	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
2,4'-DDT	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
2-Methylnaphthalene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
4,4'-DDD	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
4,4'-DDE	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
4,4'-DDT	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Acenaphthene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Acenaphthylene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Acetochlor	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Alachlor	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
alpha-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
alpha-Chlordane	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Anthracene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:49	1
Atrazine	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Benz(a)anthracene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Benzo[a]pyrene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:49	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:49	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:49	1
beta-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		03/09/25 08:38	03/10/25 13:49	1
Bromacil	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Butachlor	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Butylbenzylphthalate	<0.48		0.48	ug/L		03/09/25 08:38	03/10/25 13:49	1
Chlorobenzilate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Chloroneb	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Chlorpyrifos	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Chrysene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:49	1
delta-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		03/09/25 08:38	03/10/25 13:49	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Dieldrin	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Diethylphthalate	<0.48		0.48	ug/L		03/09/25 08:38	03/10/25 13:49	1
Dimethylphthalate	<0.48		0.48	ug/L		03/09/25 08:38	03/10/25 13:49	1
Di-n-butyl phthalate	<0.97	*+ ^3+	0.97	ug/L		03/09/25 08:38	03/10/25 13:49	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Endosulfan sulfate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Endrin	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Endrin aldehyde	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
EPTC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Fluoranthene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
gamma-Chlordane	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Heptachlor	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Hexachlorobenzene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Isophorone	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Lindane	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Malathion	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Methoxychlor	<0.048	F1	0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Metolachlor	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Molinate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Naphthalene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Parathion	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Phenanthrene	<0.039		0.039	ug/L		03/09/25 08:38	03/10/25 13:49	1
Propachlor	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Pyrene	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Simazine	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Terbacil	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Terbutylazine	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Thiobencarb	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		03/09/25 08:38	03/10/25 13:49	1
trans-Nonachlor	<0.048		0.048	ug/L		03/09/25 08:38	03/10/25 13:49	1
Trifluralin	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:49	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	03/09/25 08:38	03/10/25 13:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	102		70 - 130	03/09/25 08:38	03/10/25 13:49	1
Perylene-d12	93		70 - 130	03/09/25 08:38	03/10/25 13:49	1
Triphenylphosphate	109		70 - 130	03/09/25 08:38	03/10/25 13:49	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		03/06/25 19:41	03/11/25 17:15	1
2-Methylnaphthalene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Acenaphthene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Acenaphthylene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Anthracene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Benzo[a]anthracene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Benzo[a]pyrene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Chrysene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Fluoranthene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

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		03/06/25 19:41	03/11/25 17:15	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Naphthalene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Phenanthrene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1
Pyrene	<0.19		0.19	ug/L		03/06/25 19:41	03/11/25 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	59		28 - 127	03/06/25 19:41	03/11/25 17:15	1
2-Fluorobiphenyl (Surr)	66		31 - 120	03/06/25 19:41	03/11/25 17:15	1
2-Fluorophenol (Surr)	32		17 - 120	03/06/25 19:41	03/11/25 17:15	1
Nitrobenzene-d5 (Surr)	66		27 - 120	03/06/25 19:41	03/11/25 17:15	1
Phenol-d6 (Surr)	18		10 - 120	03/06/25 19:41	03/11/25 17:15	1
p-Terphenyl-d14 (Surr)	64		45 - 120	03/06/25 19:41	03/11/25 17:15	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
Unknown	12	T J	ug/L		2.15	N/A	03/06/25 19:41	03/13/25 13:32	1
2-Pental, (E)-	31	T J N	ug/L		2.37	1576-87-0	03/06/25 19:41	03/13/25 13:32	1
1-Hexene, 4-ethyl-	14	T J N	ug/L		2.46	16746-85-3	03/06/25 19:41	03/13/25 13:32	1
Cyclohexane, 1-methyl-2-propyl-	20	T J N	ug/L		2.58	4291-79-6	03/06/25 19:41	03/13/25 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		33 - 139	03/06/25 19:41	03/13/25 13:32	1
2-Fluorobiphenyl (Surr)	74		33 - 126	03/06/25 19:41	03/13/25 13:32	1
2-Fluorophenol (Surr)	35		12 - 120	03/06/25 19:41	03/13/25 13:32	1
Nitrobenzene-d5 (Surr)	69		36 - 120	03/06/25 19:41	03/13/25 13:32	1
Phenol-d6 (Surr)	19		10 - 120	03/06/25 19:41	03/13/25 13:32	1
p-Terphenyl-d14 (Surr)	76		47 - 131	03/06/25 19:41	03/13/25 13:32	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			03/15/25 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		38 - 134		03/15/25 18:42	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)	<27		27	ug/L		03/07/25 16:10	03/15/25 09:08	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		03/07/25 16:10	03/15/25 09:08	1
C8-C18	<27		27	ug/L		03/07/25 16:10	03/15/25 09:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	84		60 - 130	03/07/25 16:10	03/15/25 09:08	1

Client Sample Results

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

Job ID: 380-139220-1
 SDG: Weekly

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-139220-2

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			03/15/25 12:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		38 - 134				03/15/25 12:53	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 15
- 16

Action Limit Summary

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

Job ID: 380-139220-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

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 Limit	RL	Method	Prep Type
Alachlor	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L	1	0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50	0.048	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.048	F1	ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-139220-1
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)
380-139220-1	HALAWA SHAFT VIEWING POC	102	93	109
380-139220-1 MS	HALAWA SHAFT VIEWING POOL	97	98	109
380-139243-I-1-A DU	Duplicate	99	96	104
LCS 380-140713/23-A	Lab Control Sample	99	98	108
LCS 380-140713/24-A	Lab Control Sample Dup	100	100	109
MB 380-140713/21-A	Method Blank	100	99	113
MRL 380-140713/22-A	Lab Control Sample	99	97	109

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)
380-139220-1	HALAWA SHAFT VIEWING POC	83	74	35	69	19	76
MB 570-542082/1-A	Method Blank	106	78	37	72	20	79

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)
380-139220-1	HALAWA SHAFT VIEWING POC	59	66	32	66	18	64
570-221020-E-2-A MS	Matrix Spike	73	82	46	74	29	82
570-221020-E-2-B MSD	Matrix Spike Duplicate	71	83	45	71	28	77
LCS 570-542082/2-A	Lab Control Sample	71	76	40	67	25	80
LCS 570-542082/3-A	Lab Control Sample Dup	71	81	41	72	25	82
MB 570-542082/1-A	Method Blank	66	69	35	72	20	68

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: 380-139220-1
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)
380-139220-1	HALAWA SHAFT VIEWING POC	93
380-139220-2	TRIP BLANK	96
380-140202-C-3 MS	Matrix Spike	96
380-140202-C-3 MSD	Matrix Spike Duplicate	95
LCS 570-545391/3	Lab Control Sample	96
LCSD 570-545391/4	Lab Control Sample Dup	98
MB 570-545391/5	Method Blank	95
MRL 570-545391/6	Lab Control Sample	95

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)
380-138874-B-1-A MS	Matrix Spike	85
380-138874-B-1-B MSD	Matrix Spike Duplicate	84
380-139220-1	HALAWA SHAFT VIEWING POOL	84
LCS 570-542436/2-A	Lab Control Sample	82
LCSD 570-542436/3-A	Lab Control Sample Dup	82
MB 570-542436/1-A	Method Blank	86
MRL 570-542436/4-A	Lab Control Sample	82

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-139220-1
 SDG: Weekly

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

Lab Sample ID: MB 380-140713/21-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140713

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2,4'-DDD	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2,4'-DDE	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2,4'-DDT	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
2-Methylnaphthalene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
4,4'-DDD	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
4,4'-DDE	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
4,4'-DDT	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Acenaphthene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Acenaphthylene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Acetochlor	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Alachlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
alpha-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
alpha-Chlordane	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Anthracene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:28	1
Atrazine	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Benz(a)anthracene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Benzo[a]pyrene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:28	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:28	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:28	1
beta-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		03/09/25 08:38	03/10/25 13:28	1
Bromacil	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Butachlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Butylbenzylphthalate	<0.49		0.49	ug/L		03/09/25 08:38	03/10/25 13:28	1
Chlorobenzilate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Chloroneb	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Chlorpyrifos	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Chrysene	<0.019		0.019	ug/L		03/09/25 08:38	03/10/25 13:28	1
delta-BHC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		03/09/25 08:38	03/10/25 13:28	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Dieldrin	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Diethylphthalate	<0.49		0.49	ug/L		03/09/25 08:38	03/10/25 13:28	1
Dimethylphthalate	<0.49		0.49	ug/L		03/09/25 08:38	03/10/25 13:28	1
Di-n-butyl phthalate	<0.97	^3+	0.97	ug/L		03/09/25 08:38	03/10/25 13:28	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Endosulfan sulfate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Endrin	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Endrin aldehyde	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
EPTC	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1

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QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: MB 380-140713/21-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140713

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Fluorene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
gamma-Chlordane	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Heptachlor	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Isophorone	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Lindane	<0.0097		0.0097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Malathion	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Methoxychlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Metolachlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Molinate	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Naphthalene	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Parathion	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Phenanthrene	<0.039		0.039	ug/L		03/09/25 08:38	03/10/25 13:28	1
Propachlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Pyrene	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Simazine	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Terbacil	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Terbutylazine	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Thiobencarb	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		03/09/25 08:38	03/10/25 13:28	1
trans-Nonachlor	<0.049		0.049	ug/L		03/09/25 08:38	03/10/25 13:28	1
Trifluralin	<0.097		0.097	ug/L		03/09/25 08:38	03/10/25 13:28	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.783	T J	ug/L		4.63	N/A	03/09/25 08:38	03/10/25 13:28	1
Hexadecanamide	1.34	T J N	ug/L		6.91	629-54-9	03/09/25 08:38	03/10/25 13:28	1
9-Octadecenamide, (Z)-	11.3	T J N	ug/L		7.75	301-02-0	03/09/25 08:38	03/10/25 13:28	1
Pentadecanamide, 15-bromo-	0.938	T J N	ug/L		7.84	1000163-86-1	03/09/25 08:38	03/10/25 13:28	1
Unknown	0.634	T J	ug/L		9.55	N/A	03/09/25 08:38	03/10/25 13:28	1
Unknown	5.02	T J	ug/L		10.23	N/A	03/09/25 08:38	03/10/25 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	100		70 - 130	03/09/25 08:38	03/10/25 13:28	1
Perylene-d12	99		70 - 130	03/09/25 08:38	03/10/25 13:28	1
Triphenylphosphate	113		70 - 130	03/09/25 08:38	03/10/25 13:28	1

Lab Sample ID: LCS 380-140713/23-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.95	1.74		ug/L		89	70 - 130

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QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCS 380-140713/23-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.95	2.20		ug/L		113	70 - 130
2,4'-DDE	1.95	2.06		ug/L		106	70 - 130
2,4'-DDT	1.95	2.25		ug/L		115	70 - 130
2,4-Dinitrotoluene	1.95	2.21		ug/L		114	70 - 130
2,6-Dinitrotoluene	1.95	1.87		ug/L		96	70 - 130
2-Methylnaphthalene	1.95	1.81		ug/L		93	70 - 130
4,4'-DDD	1.95	2.29		ug/L		117	70 - 130
4,4'-DDE	1.95	2.22		ug/L		114	70 - 130
4,4'-DDT	1.95	2.41		ug/L		124	70 - 130
Acenaphthene	1.95	1.94		ug/L		99	70 - 130
Acenaphthylene	1.95	2.02		ug/L		103	70 - 130
Acetochlor	1.95	2.18		ug/L		112	70 - 130
Alachlor	1.95	2.14		ug/L		110	70 - 130
alpha-BHC	1.95	2.21		ug/L		113	70 - 130
alpha-Chlordane	1.95	2.00		ug/L		103	70 - 130
Anthracene	1.95	2.12		ug/L		109	70 - 130
Atrazine	1.95	2.17		ug/L		111	70 - 130
Benz(a)anthracene	1.95	2.16		ug/L		111	70 - 130
Benzo[a]pyrene	1.95	2.11		ug/L		108	70 - 130
Benzo[b]fluoranthene	1.95	2.12		ug/L		109	70 - 130
Benzo[g,h,i]perylene	1.95	2.05		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.95	2.05		ug/L		105	70 - 130
beta-BHC	1.95	2.24		ug/L		115	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.20		ug/L		113	70 - 130
Bromacil	1.95	2.05		ug/L		105	70 - 130
Butachlor	1.95	2.24		ug/L		115	70 - 130
Butylbenzylphthalate	1.95	2.41		ug/L		124	70 - 130
Chlorobenzilate	1.95	2.32		ug/L		119	70 - 130
Chloroneb	1.95	2.00		ug/L		103	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.20		ug/L		113	70 - 130
Chlorpyrifos	1.95	2.14		ug/L		110	70 - 130
Chrysene	1.95	1.91		ug/L		98	70 - 130
delta-BHC	1.95	2.20		ug/L		113	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.50		ug/L		128	70 - 130
Dibenz(a,h)anthracene	1.95	2.04		ug/L		105	70 - 130
Diclorvos (DDVP)	1.95	1.91		ug/L		98	70 - 130
Dieldrin	1.95	2.19		ug/L		112	70 - 130
Diethylphthalate	1.95	2.09		ug/L		107	70 - 130
Dimethylphthalate	1.95	2.05		ug/L		105	70 - 130
Di-n-butyl phthalate	3.90	5.24	*+	ug/L		134	70 - 130
Di-n-octyl phthalate	1.95	2.08		ug/L		107	70 - 130
Endosulfan I (Alpha)	1.95	2.10		ug/L		108	70 - 130
Endosulfan II (Beta)	1.95	2.16		ug/L		111	70 - 130
Endosulfan sulfate	1.95	2.20		ug/L		113	70 - 130
Endrin	1.95	2.25		ug/L		115	70 - 130
Endrin aldehyde	1.95	2.12		ug/L		109	60 - 130
EPTC	1.95	2.01		ug/L		103	70 - 130
Fluoranthene	1.95	2.13		ug/L		109	70 - 130
Fluorene	1.95	1.99		ug/L		102	70 - 130

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QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCS 380-140713/23-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-Chlordane	1.95	1.84		ug/L		94	70 - 130
Heptachlor	1.95	2.27		ug/L		117	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.24		ug/L		115	70 - 130
Hexachlorobenzene	1.95	1.97		ug/L		101	70 - 130
Hexachlorocyclopentadiene	1.95	2.15		ug/L		111	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.12		ug/L		109	70 - 130
Isophorone	1.95	1.95		ug/L		100	70 - 130
Lindane	1.95	1.89		ug/L		97	70 - 130
Malathion	1.95	2.36		ug/L		121	70 - 130
Methoxychlor	1.95	2.25		ug/L		115	70 - 130
Metolachlor	1.95	2.42		ug/L		124	70 - 130
Molinate	1.95	2.07		ug/L		106	70 - 130
Naphthalene	1.95	1.91		ug/L		98	70 - 130
Parathion	1.95	2.23		ug/L		115	70 - 130
Pendimethalin (Penoxaline)	1.95	2.32		ug/L		119	70 - 130
Phenanthrene	1.95	1.92		ug/L		99	70 - 130
Propachlor	1.95	2.09		ug/L		107	70 - 130
Pyrene	1.95	2.15		ug/L		111	70 - 130
Simazine	1.95	2.24		ug/L		115	70 - 130
Terbacil	1.95	2.11		ug/L		108	70 - 130
Terbutylazine	1.95	2.24		ug/L		115	70 - 130
Thiobencarb	1.95	2.24		ug/L		115	70 - 130
trans-Nonachlor	1.95	1.99		ug/L		102	70 - 130
Trifluralin	1.95	2.19		ug/L		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	108		70 - 130

Lab Sample ID: LCSD 380-140713/24-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.95	1.74		ug/L		89	70 - 130	0	20
2,4'-DDD	1.95	2.17		ug/L		111	70 - 130	1	20
2,4'-DDE	1.95	2.05		ug/L		105	70 - 130	1	20
2,4'-DDT	1.95	2.22		ug/L		114	70 - 130	1	20
2,4-Dinitrotoluene	1.95	2.28		ug/L		117	70 - 130	3	20
2,6-Dinitrotoluene	1.95	1.96		ug/L		100	70 - 130	5	20
2-Methylnaphthalene	1.95	1.78		ug/L		91	70 - 130	1	20
4,4'-DDD	1.95	2.28		ug/L		117	70 - 130	0	20
4,4'-DDE	1.95	2.20		ug/L		113	70 - 130	1	20
4,4'-DDT	1.95	2.37		ug/L		122	70 - 130	2	20
Acenaphthene	1.95	1.93		ug/L		99	70 - 130	1	20
Acenaphthylene	1.95	2.04		ug/L		105	70 - 130	1	20
Acetochlor	1.95	2.19		ug/L		112	70 - 130	1	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-140713/24-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Alachlor	1.95	2.13		ug/L		109	70 - 130	0	20	
alpha-BHC	1.95	2.27		ug/L		117	70 - 130	3	20	
alpha-Chlordane	1.95	2.03		ug/L		104	70 - 130	1	20	
Anthracene	1.95	2.11		ug/L		108	70 - 130	0	20	
Atrazine	1.95	2.14		ug/L		110	70 - 130	1	20	
Benz(a)anthracene	1.95	2.20		ug/L		113	70 - 130	2	20	
Benzo[a]pyrene	1.95	2.23		ug/L		114	70 - 130	5	20	
Benzo[b]fluoranthene	1.95	2.29		ug/L		117	70 - 130	8	20	
Benzo[g,h,i]perylene	1.95	2.10		ug/L		108	70 - 130	2	20	
Benzo[k]fluoranthene	1.95	2.04		ug/L		104	70 - 130	1	20	
beta-BHC	1.95	2.33		ug/L		119	70 - 130	4	20	
Bis(2-ethylhexyl) phthalate	1.95	2.26		ug/L		116	70 - 130	3	20	
Bromacil	1.95	2.04		ug/L		104	70 - 130	1	20	
Butachlor	1.95	2.23		ug/L		115	70 - 130	0	20	
Butylbenzylphthalate	1.95	2.37		ug/L		122	70 - 130	2	20	
Chlorobenzilate	1.95	2.30		ug/L		118	70 - 130	1	20	
Chloroneb	1.95	2.07		ug/L		106	70 - 130	3	20	
Chlorothalonil (Draconil, Bravo)	1.95	2.16		ug/L		111	70 - 130	1	20	
Chlorpyrifos	1.95	2.09		ug/L		107	70 - 130	2	20	
Chrysene	1.95	1.94		ug/L		100	70 - 130	2	20	
delta-BHC	1.95	2.19		ug/L		112	70 - 130	1	20	
Di(2-ethylhexyl)adipate	1.95	2.52		ug/L		129	70 - 130	1	20	
Dibenz(a,h)anthracene	1.95	2.20		ug/L		113	70 - 130	8	20	
Diclorvos (DDVP)	1.95	1.90		ug/L		97	70 - 130	1	20	
Dieldrin	1.95	2.14		ug/L		110	70 - 130	2	20	
Diethylphthalate	1.95	2.14		ug/L		110	70 - 130	2	20	
Dimethylphthalate	1.95	2.07		ug/L		106	70 - 130	1	20	
Di-n-butyl phthalate	3.90	5.43	+	ug/L		139	70 - 130	4	20	
Di-n-octyl phthalate	1.95	2.16		ug/L		111	70 - 130	4	20	
Endosulfan I (Alpha)	1.95	2.12		ug/L		109	70 - 130	1	20	
Endosulfan II (Beta)	1.95	2.27		ug/L		116	70 - 130	5	20	
Endosulfan sulfate	1.95	2.19		ug/L		112	70 - 130	1	20	
Endrin	1.95	2.27		ug/L		116	70 - 130	1	20	
Endrin aldehyde	1.95	2.08		ug/L		107	60 - 130	2	20	
EPTC	1.95	2.00		ug/L		103	70 - 130	0	20	
Fluoranthene	1.95	2.14		ug/L		110	70 - 130	0	20	
Fluorene	1.95	2.01		ug/L		103	70 - 130	1	20	
gamma-Chlordane	1.95	1.84		ug/L		94	70 - 130	0	20	
Heptachlor	1.95	2.19		ug/L		112	70 - 130	4	20	
Heptachlor epoxide (isomer B)	1.95	2.23		ug/L		114	70 - 130	1	20	
Hexachlorobenzene	1.95	1.95		ug/L		100	70 - 130	1	20	
Hexachlorocyclopentadiene	1.95	2.07		ug/L		106	70 - 130	4	20	
Indeno[1,2,3-cd]pyrene	1.95	2.16		ug/L		111	70 - 130	2	20	
Isophorone	1.95	1.96		ug/L		100	70 - 130	0	20	
Lindane	1.95	1.94		ug/L		99	70 - 130	2	20	
Malathion	1.95	2.27		ug/L		116	70 - 130	4	20	
Methoxychlor	1.95	2.30		ug/L		118	70 - 130	2	20	
Metolachlor	1.95	2.39		ug/L		122	70 - 130	1	20	
Molinate	1.95	2.07		ug/L		106	70 - 130	0	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-140713/24-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Naphthalene	1.95	1.90		ug/L		97	70 - 130	1	20
Parathion	1.95	2.19		ug/L		112	70 - 130	2	20
Pendimethalin (Penoxaline)	1.95	2.31		ug/L		118	70 - 130	0	20
Phenanthrene	1.95	1.89		ug/L		97	70 - 130	2	20
Propachlor	1.95	2.13		ug/L		109	70 - 130	2	20
Pyrene	1.95	2.16		ug/L		111	70 - 130	0	20
Simazine	1.95	2.26		ug/L		116	70 - 130	1	20
Terbacil	1.95	2.17		ug/L		111	70 - 130	3	20
Terbutylazine	1.95	2.23		ug/L		114	70 - 130	0	20
Thiobencarb	1.95	2.22		ug/L		114	70 - 130	1	20
trans-Nonachlor	1.95	1.99		ug/L		102	70 - 130	0	20
Trifluralin	1.95	2.26		ug/L		116	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: MRL 380-140713/22-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0971	0.100		ug/L		103	50 - 150
2,4'-DDD	0.0971	0.0954	J	ug/L		98	50 - 150
2,4'-DDE	0.0971	0.0973		ug/L		100	50 - 150
2,4'-DDT	0.0971	0.106		ug/L		109	50 - 150
2,4-Dinitrotoluene	0.0971	0.123		ug/L		127	50 - 150
2,6-Dinitrotoluene	0.0971	0.118		ug/L		121	50 - 150
2-Methylnaphthalene	0.0971	0.0958	J	ug/L		99	50 - 150
4,4'-DDD	0.0971	0.109		ug/L		113	50 - 150
4,4'-DDE	0.0971	0.105		ug/L		108	50 - 150
4,4'-DDT	0.0971	0.113		ug/L		116	50 - 150
Acenaphthene	0.0971	0.0904	J	ug/L		93	50 - 150
Acenaphthylene	0.0971	0.0929	J	ug/L		96	50 - 150
Acetochlor	0.0971	0.111		ug/L		114	50 - 150
Alachlor	0.0486	0.0524		ug/L		108	50 - 150
alpha-BHC	0.0971	0.0942	J	ug/L		97	50 - 150
alpha-Chlordane	0.0243	<0.028		ug/L		106	50 - 150
Anthracene	0.0194	0.0227		ug/L		117	50 - 150
Atrazine	0.0486	0.0546		ug/L		112	50 - 150
Benz(a)anthracene	0.0486	0.0560		ug/L		115	50 - 150
Benzo[a]pyrene	0.0194	0.0206		ug/L		106	50 - 150
Benzo[b]fluoranthene	0.0194	0.0216		ug/L		111	50 - 150
Benzo[g,h,i]perylene	0.0486	0.0431	J	ug/L		89	50 - 150
Benzo[k]fluoranthene	0.0194	0.0179	J	ug/L		92	50 - 150
beta-BHC	0.0971	0.115		ug/L		119	50 - 150
Bis(2-ethylhexyl) phthalate	0.583	0.625		ug/L		107	50 - 150

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: MRL 380-140713/22-A
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Bromacil	0.0971	0.100		ug/L		103	50 - 150
Butachlor	0.0486	0.0535		ug/L		110	50 - 150
Butylbenzylphthalate	0.486	0.621		ug/L		128	50 - 150
Chlorobenzilate	0.0971	0.101		ug/L		104	50 - 150
Chloroneb	0.0971	0.0785	J	ug/L		81	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0971	0.0892	J	ug/L		92	50 - 150
Chlorpyrifos	0.0486	0.0516		ug/L		106	50 - 150
Chrysene	0.0194	0.0217		ug/L		112	50 - 150
delta-BHC	0.0971	0.114		ug/L		117	50 - 150
Di(2-ethylhexyl)adipate	0.583	0.743		ug/L		127	50 - 150
Dibenz(a,h)anthracene	0.0486	0.0501		ug/L		103	50 - 150
Diclorvos (DDVP)	0.0486	0.0537		ug/L		111	50 - 150
Dieldrin	0.00971	0.00780	J	ug/L		80	50 - 150
Diethylphthalate	0.486	0.505		ug/L		104	50 - 150
Dimethylphthalate	0.486	0.502		ug/L		103	50 - 150
Di-n-butyl phthalate	0.486	1.32	^3+	ug/L		272	49 - 243
Di-n-octyl phthalate	0.0971	0.104		ug/L		107	50 - 150
Endosulfan I (Alpha)	0.0971	0.118		ug/L		122	50 - 150
Endosulfan II (Beta)	0.0971	0.0874	J	ug/L		90	50 - 150
Endosulfan sulfate	0.0971	0.105		ug/L		108	50 - 150
Endrin	0.00971	0.0134		ug/L		138	50 - 150
Endrin aldehyde	0.0971	0.101		ug/L		104	50 - 150
EPTC	0.0971	0.0987		ug/L		102	50 - 150
Fluoranthene	0.0971	0.0984		ug/L		101	50 - 150
Fluorene	0.0486	<0.049		ug/L		100	50 - 150
gamma-Chlordane	0.0243	0.0242	J	ug/L		100	50 - 150
Heptachlor	0.00971	0.0122		ug/L		126	50 - 150
Heptachlor epoxide (isomer B)	0.00971	0.0115		ug/L		118	50 - 150
Hexachlorobenzene	0.0486	0.0469	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0486	0.0464	J	ug/L		96	50 - 150
Indeno[1,2,3-cd]pyrene	0.0486	0.0489	J	ug/L		101	50 - 150
Isophorone	0.0971	0.107		ug/L		111	50 - 150
Lindane	0.00971	0.0104		ug/L		107	50 - 150
Malathion	0.0971	0.100		ug/L		103	50 - 150
Methoxychlor	0.0486	0.0635		ug/L		131	50 - 150
Metolachlor	0.0486	0.0589		ug/L		121	50 - 150
Molinate	0.0971	0.0956	J	ug/L		98	50 - 150
Naphthalene	0.0971	0.0942	J	ug/L		97	50 - 150
Parathion	0.0971	0.102		ug/L		105	50 - 150
Pendimethalin (Penoxaline)	0.0971	0.113		ug/L		117	50 - 150
Phenanthrene	0.0389	0.0421		ug/L		108	50 - 150
Propachlor	0.0486	0.0468	J	ug/L		96	50 - 150
Pyrene	0.0486	0.0496		ug/L		102	50 - 150
Simazine	0.0486	0.0528		ug/L		109	50 - 150
Terbacil	0.0971	0.114		ug/L		117	50 - 150
Terbutylazine	0.0971	0.109		ug/L		113	50 - 150
Thiobencarb	0.0971	0.105		ug/L		108	50 - 150
trans-Nonachlor	0.0243	0.0278	J	ug/L		115	50 - 150
Trifluralin	0.0971	0.110		ug/L		114	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

<i>Surrogate</i>	<i>MRL</i> %Recovery	<i>MRL</i> Qualifier	<i>Limits</i>
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: 380-139220-1 MS
Matrix: Water
Analysis Batch: 140861

Client Sample ID: HALAWA SHAFT VIEWING POOL
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.96	1.73		ug/L		88	70 - 130
2,4'-DDD	<0.097		1.96	2.17		ug/L		111	70 - 130
2,4'-DDE	<0.097		1.96	1.92		ug/L		98	70 - 130
2,4'-DDT	<0.097		1.96	2.13		ug/L		109	70 - 130
2,4-Dinitrotoluene	<0.097		1.96	2.40		ug/L		123	70 - 130
2,6-Dinitrotoluene	<0.097		1.96	1.98		ug/L		101	70 - 130
2-Methylnaphthalene	<0.097		1.96	1.75		ug/L		89	70 - 130
4,4'-DDD	<0.097		1.96	2.28		ug/L		117	70 - 130
4,4'-DDE	<0.097		1.96	2.05		ug/L		105	70 - 130
4,4'-DDT	<0.097		1.96	2.24		ug/L		114	70 - 130
Acenaphthene	<0.097		1.96	1.92		ug/L		98	70 - 130
Acenaphthylene	<0.097		1.96	1.99		ug/L		102	70 - 130
Acetochlor	<0.097		1.96	2.16		ug/L		111	70 - 130
Alachlor	<0.048		1.96	1.76		ug/L		90	70 - 130
alpha-BHC	<0.097		1.96	2.28		ug/L		116	70 - 130
alpha-Chlordane	<0.048		1.96	1.95		ug/L		100	70 - 130
Anthracene	<0.019		1.96	2.15		ug/L		110	70 - 130
Atrazine	<0.048		1.96	2.21		ug/L		113	70 - 130
Benz(a)anthracene	<0.048		1.96	2.16		ug/L		110	70 - 130
Benzo[a]pyrene	<0.019		1.96	2.38		ug/L		121	70 - 130
Benzo[b]fluoranthene	<0.019		1.96	2.37		ug/L		121	70 - 130
Benzo[g,h,i]perylene	<0.048		1.96	1.93		ug/L		98	70 - 130
Benzo[k]fluoranthene	<0.019		1.96	2.20		ug/L		113	70 - 130
beta-BHC	<0.097		1.96	2.41		ug/L		123	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.96	2.04		ug/L		104	70 - 130
Bromacil	<0.097		1.96	2.13		ug/L		109	70 - 130
Butachlor	<0.048		1.96	1.90		ug/L		97	70 - 130
Butylbenzylphthalate	<0.48		1.96	2.44		ug/L		125	70 - 130
Chlorobenzilate	<0.097		1.96	2.39		ug/L		122	70 - 130
Chloroneb	<0.097		1.96	2.07		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.96	2.11		ug/L		108	70 - 130
Chlorpyrifos	<0.048		1.96	2.04		ug/L		104	70 - 130
Chrysene	<0.019		1.96	2.17		ug/L		111	70 - 130
delta-BHC	<0.097		1.96	2.32		ug/L		118	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.96	2.06		ug/L		105	70 - 130
Dibenz(a,h)anthracene	<0.048		1.96	1.99		ug/L		102	70 - 130
Diclorvos (DDVP)	<0.048		1.96	1.93		ug/L		98	70 - 130
Dieldrin	<0.0097		1.96	2.20		ug/L		113	70 - 130
Diethylphthalate	<0.48		1.96	2.14		ug/L		109	70 - 130
Dimethylphthalate	<0.48		1.96	2.06		ug/L		105	70 - 130
Di-n-butyl phthalate	<0.97	*+ ^3+	3.92	5.18		ug/L		123	70 - 130
Di-n-octyl phthalate	<0.097		1.96	1.80		ug/L		92	70 - 130

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: 380-139220-1 MS

Matrix: Water

Analysis Batch: 140861

Client Sample ID: HALAWA SHAFT VIEWING POOL

Prep Type: Total/NA

Prep Batch: 140713

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Endosulfan I (Alpha)	<0.097		1.96	2.01		ug/L		103	70 - 130
Endosulfan II (Beta)	<0.097		1.96	2.26		ug/L		116	70 - 130
Endosulfan sulfate	<0.097		1.96	2.14		ug/L		109	70 - 130
Endrin	<0.0097		1.96	2.33		ug/L		119	70 - 130
Endrin aldehyde	<0.097		1.96	1.97		ug/L		101	60 - 130
EPTC	<0.097		1.96	1.94		ug/L		99	70 - 130
Fluoranthene	<0.097		1.96	2.07		ug/L		106	70 - 130
Fluorene	<0.048		1.96	2.00		ug/L		102	70 - 130
gamma-Chlordane	<0.048		1.96	1.76		ug/L		90	70 - 130
Heptachlor	<0.0097		1.96	2.14		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.96	2.11		ug/L		108	70 - 130
Hexachlorobenzene	<0.048		1.96	1.94		ug/L		99	70 - 130
Hexachlorocyclopentadiene	<0.048		1.96	2.16		ug/L		110	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.96	2.05		ug/L		105	70 - 130
Isophorone	<0.097		1.96	1.91		ug/L		98	70 - 130
Lindane	<0.0097		1.96	1.91		ug/L		98	70 - 130
Malathion	<0.097		1.96	2.31		ug/L		118	70 - 130
Methoxychlor	<0.048	F1	1.96	2.81	F1	ug/L		144	70 - 130
Metolachlor	<0.048		1.96	2.01		ug/L		103	70 - 130
Molinate	<0.097		1.96	2.06		ug/L		105	70 - 130
Naphthalene	<0.097		1.96	1.87		ug/L		95	70 - 130
Parathion	<0.097		1.96	2.28		ug/L		116	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.96	2.42		ug/L		123	70 - 130
Phenanthrene	<0.039		1.96	1.89		ug/L		97	70 - 130
Propachlor	<0.048		1.96	2.15		ug/L		110	70 - 130
Pyrene	<0.048		1.96	2.15		ug/L		110	70 - 130
Simazine	<0.048		1.96	2.37		ug/L		121	70 - 130
Terbacil	<0.097		1.96	2.23		ug/L		114	70 - 130
Terbutylazine	<0.097		1.96	2.30		ug/L		117	70 - 130
Thiobencarb	<0.097		1.96	2.19		ug/L		112	70 - 130
trans-Nonachlor	<0.048		1.96	1.90		ug/L		97	70 - 130
Trifluralin	<0.097		1.96	2.42		ug/L		124	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: 380-139243-I-1-A DU

Matrix: Water

Analysis Batch: 140861

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 140713

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

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QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: 380-139243-I-1-A DU
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,6-Dinitrotoluene	<0.096		<0.096		ug/L		NC	20
2-Methylnaphthalene	<0.096		<0.096		ug/L		NC	20
4,4'-DDD	<0.096		<0.096		ug/L		NC	20
4,4'-DDE	<0.096		<0.096		ug/L		NC	20
4,4'-DDT	<0.096		<0.096		ug/L		NC	20
Acenaphthene	<0.096		<0.096		ug/L		NC	20
Acenaphthylene	<0.096		<0.096		ug/L		NC	20
Acetochlor	<0.096		<0.096		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.096		<0.096		ug/L		NC	20
alpha-Chlordane	0.13		0.125		ug/L		3	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.096		<0.096		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.57		ug/L		NC	20
Bromacil	<0.096		<0.096		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.096		<0.096		ug/L		NC	20
Chloroneb	<0.096		<0.096		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.096		<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	<0.096		<0.096		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.57		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	0.024		0.0275		ug/L		14	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.96	*+ ^3+	<0.96	*+	ug/L		NC	20
Di-n-octyl phthalate	<0.096		<0.096		ug/L		NC	20
Endosulfan I (Alpha)	<0.096		<0.096		ug/L		NC	20
Endosulfan II (Beta)	<0.096		<0.096		ug/L		NC	20
Endosulfan sulfate	<0.096		<0.096		ug/L		NC	20
Endrin	<0.0096		<0.0096		ug/L		NC	20
Endrin aldehyde	<0.096		<0.096		ug/L		NC	20
EPTC	<0.096		<0.096		ug/L		NC	20
Fluoranthene	<0.096		<0.096		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	0.12		0.123		ug/L		3	20
Heptachlor	<0.0096		<0.0096		ug/L		NC	20
Heptachlor epoxide (isomer B)	0.011		<0.0096		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: 380-139243-I-1-A DU
Matrix: Water
Analysis Batch: 140861

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 140713

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.096		<0.096		ug/L		NC	20
Lindane	<0.0096		<0.0096		ug/L		NC	20
Malathion	<0.096		<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	<0.096		<0.096		ug/L		NC	20
Naphthalene	<0.096		<0.096		ug/L		NC	20
Parathion	<0.096		<0.096		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.096		<0.096		ug/L		NC	20
Phenanthrene	<0.038		<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	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.096		<0.096		ug/L		NC	20
Terbutylazine	<0.096		<0.096		ug/L		NC	20
Thiobencarb	<0.096		<0.096		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	0.067		0.0681		ug/L		1	20
Trifluralin	<0.096		<0.096		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	104		70 - 130

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

Lab Sample ID: MB 570-542082/1-A
Matrix: Water
Analysis Batch: 544507

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 542082

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	03/06/25 19:41	03/13/25 11:40	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	106		33 - 139	03/06/25 19:41	03/13/25 11:40	1
2-Fluorobiphenyl (Surr)	78		33 - 126	03/06/25 19:41	03/13/25 11:40	1
2-Fluorophenol (Surr)	37		12 - 120	03/06/25 19:41	03/13/25 11:40	1
Nitrobenzene-d5 (Surr)	72		36 - 120	03/06/25 19:41	03/13/25 11:40	1
Phenol-d6 (Surr)	20		10 - 120	03/06/25 19:41	03/13/25 11:40	1
p-Terphenyl-d14 (Surr)	79		47 - 131	03/06/25 19:41	03/13/25 11:40	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: MB 570-542082/1-A
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 542082

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
2-Methylnaphthalene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Acenaphthene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Acenaphthylene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Anthracene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Benzo[a]anthracene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Benzo[a]pyrene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Chrysene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Fluoranthene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Fluorene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Naphthalene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Phenanthrene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1
Pyrene	<0.20		0.20	ug/L		03/06/25 19:41	03/11/25 14:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		28 - 127	03/06/25 19:41	03/11/25 14:41	1
2-Fluorobiphenyl (Surr)	69		31 - 120	03/06/25 19:41	03/11/25 14:41	1
2-Fluorophenol (Surr)	35		17 - 120	03/06/25 19:41	03/11/25 14:41	1
Nitrobenzene-d5 (Surr)	72		27 - 120	03/06/25 19:41	03/11/25 14:41	1
Phenol-d6 (Surr)	20		10 - 120	03/06/25 19:41	03/11/25 14:41	1
p-Terphenyl-d14 (Surr)	68		45 - 120	03/06/25 19:41	03/11/25 14:41	1

Lab Sample ID: LCS 570-542082/2-A
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	12.9		ug/L		65	47 - 120
2-Methylnaphthalene	20.0	14.5		ug/L		73	43 - 120
Acenaphthene	20.0	15.5		ug/L		78	60 - 132
Acenaphthylene	20.0	15.4		ug/L		77	54 - 126
Anthracene	20.0	16.4		ug/L		82	43 - 120
Benzo[a]anthracene	20.0	16.5		ug/L		82	42 - 133
Benzo[a]pyrene	20.0	17.9		ug/L		89	32 - 148
Benzo[b]fluoranthene	20.0	16.9		ug/L		84	42 - 140
Benzo[g,h,i]perylene	20.0	15.8		ug/L		79	1 - 195
Benzo[k]fluoranthene	20.0	17.3		ug/L		86	25 - 146
Chrysene	20.0	16.2		ug/L		81	44 - 140
Dibenz(a,h)anthracene	20.0	16.0		ug/L		80	1 - 200
Fluoranthene	20.0	16.6		ug/L		83	43 - 121
Fluorene	20.0	16.1		ug/L		80	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.7		ug/L		84	1 - 151
Naphthalene	20.0	13.2		ug/L		66	36 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCS 570-542082/2-A
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	20.0	16.3		ug/L		81	65 - 120
Pyrene	20.0	16.5		ug/L		83	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	71		28 - 127
2-Fluorobiphenyl (Surr)	76		31 - 120
2-Fluorophenol (Surr)	40		17 - 120
Nitrobenzene-d5 (Surr)	67		27 - 120
Phenol-d6 (Surr)	25		10 - 120
p-Terphenyl-d14 (Surr)	80		45 - 120

Lab Sample ID: LCSD 570-542082/3-A
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 542082

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1-Methylnaphthalene	20.0	13.7		ug/L		69	47 - 120	6	20
2-Methylnaphthalene	20.0	15.8		ug/L		79	43 - 120	8	20
Acenaphthene	20.0	17.0		ug/L		85	60 - 132	9	29
Acenaphthylene	20.0	16.7		ug/L		84	54 - 126	8	45
Anthracene	20.0	17.1		ug/L		85	43 - 120	4	40
Benzo[a]anthracene	20.0	17.2		ug/L		86	42 - 133	4	32
Benzo[a]pyrene	20.0	18.7		ug/L		93	32 - 148	4	43
Benzo[b]fluoranthene	20.0	18.0		ug/L		90	42 - 140	6	43
Benzo[g,h,i]perylene	20.0	17.0		ug/L		85	1 - 195	7	61
Benzo[k]fluoranthene	20.0	18.1		ug/L		90	25 - 146	4	38
Chrysene	20.0	17.1		ug/L		86	44 - 140	6	53
Dibenz(a,h)anthracene	20.0	17.5		ug/L		88	1 - 200	9	75
Fluoranthene	20.0	16.9		ug/L		85	43 - 121	2	40
Fluorene	20.0	17.3		ug/L		86	70 - 120	7	23
Indeno[1,2,3-cd]pyrene	20.0	18.0		ug/L		90	1 - 151	7	60
Naphthalene	20.0	14.2		ug/L		71	36 - 120	8	39
Phenanthrene	20.0	16.8		ug/L		84	65 - 120	3	24
Pyrene	20.0	17.8		ug/L		89	70 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	71		28 - 127
2-Fluorobiphenyl (Surr)	81		31 - 120
2-Fluorophenol (Surr)	41		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	25		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: 570-221020-E-2-A MS
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 542082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.19		19.6	14.3		ug/L		73	36 - 120
2-Methylnaphthalene	<0.19		19.6	16.0		ug/L		82	32 - 124
Acenaphthene	<0.19		19.6	17.2		ug/L		88	47 - 145
Acenaphthylene	<0.19		19.6	16.4		ug/L		84	33 - 145
Anthracene	<0.19		19.6	16.8		ug/L		85	27 - 133
Benzo[a]anthracene	<0.19		19.6	17.4		ug/L		88	33 - 143
Benzo[a]pyrene	<0.19		19.6	18.2		ug/L		93	17 - 163
Benzo[b]fluoranthene	<0.19		19.6	17.9		ug/L		91	24 - 159
Benzo[g,h,i]perylene	<0.19		19.6	17.3		ug/L		88	1 - 219
Benzo[k]fluoranthene	<0.19		19.6	17.7		ug/L		90	11 - 162
Chrysene	<0.19		19.6	17.1		ug/L		87	17 - 168
Dibenz(a,h)anthracene	<0.19		19.6	17.6		ug/L		90	1 - 227
Fluoranthene	<0.19		19.6	16.8		ug/L		86	26 - 137
Fluorene	<0.19		19.6	17.6		ug/L		90	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.6	18.1		ug/L		92	1 - 171
Naphthalene	<0.19		19.6	15.0		ug/L		76	21 - 133
Phenanthrene	<0.19		19.6	16.8		ug/L		86	54 - 120
Pyrene	<0.19		19.6	17.8		ug/L		91	52 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol (Surr)	73		28 - 127
2-Fluorobiphenyl (Surr)	82		31 - 120
2-Fluorophenol (Surr)	46		17 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120
Phenol-d6 (Surr)	29		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

Lab Sample ID: 570-221020-E-2-B MSD
Matrix: Water
Analysis Batch: 543594

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 542082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1-Methylnaphthalene	<0.19		19.1	13.6		ug/L		71	36 - 120	5	30
2-Methylnaphthalene	<0.19		19.1	15.4		ug/L		81	32 - 124	4	30
Acenaphthene	<0.19		19.1	16.9		ug/L		89	47 - 145	1	48
Acenaphthylene	<0.19		19.1	16.8		ug/L		88	33 - 145	2	74
Anthracene	<0.19		19.1	16.6		ug/L		87	27 - 133	1	66
Benzo[a]anthracene	<0.19		19.1	16.5		ug/L		87	33 - 143	5	53
Benzo[a]pyrene	<0.19		19.1	17.6		ug/L		93	17 - 163	3	72
Benzo[b]fluoranthene	<0.19		19.1	16.9		ug/L		89	24 - 159	5	71
Benzo[g,h,i]perylene	<0.19		19.1	16.1		ug/L		84	1 - 219	7	97
Benzo[k]fluoranthene	<0.19		19.1	17.2		ug/L		90	11 - 162	3	63
Chrysene	<0.19		19.1	16.0		ug/L		84	17 - 168	7	87
Dibenz(a,h)anthracene	<0.19		19.1	16.5		ug/L		86	1 - 227	6	126
Fluoranthene	<0.19		19.1	16.9		ug/L		89	26 - 137	1	66
Fluorene	<0.19		19.1	16.9		ug/L		89	59 - 121	4	38
Indeno[1,2,3-cd]pyrene	<0.19		19.1	17.3		ug/L		91	1 - 171	5	99
Naphthalene	<0.19		19.1	13.7		ug/L		72	21 - 133	9	65

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: 570-221020-E-2-B MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 543594

Prep Batch: 542082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	<0.19		19.1	16.5		ug/L		87	54 - 120	2	39
Pyrene	<0.19		19.1	16.4		ug/L		86	52 - 120	8	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	71		28 - 127
2-Fluorobiphenyl (Surr)	83		31 - 120
2-Fluorophenol (Surr)	45		17 - 120
Nitrobenzene-d5 (Surr)	71		27 - 120
Phenol-d6 (Surr)	28		10 - 120
p-Terphenyl-d14 (Surr)	77		45 - 120

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

Lab Sample ID: MB 570-545391/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 545391

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			03/15/25 11:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		38 - 134		03/15/25 11:52	1

Lab Sample ID: LCS 570-545391/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 545391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	341		ug/L		85	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		38 - 134

Lab Sample ID: LCSD 570-545391/4

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 545391

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	352		ug/L		88	78 - 120	3	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		38 - 134

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: MRL 570-545391/6
Matrix: Water
Analysis Batch: 545391

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	11.3		ug/L		113	50 - 150
Surrogate		MRL %Recovery	MRL Qualifier				Limits
4-Bromofluorobenzene (Surr)		95					38 - 134

Lab Sample ID: 380-140202-C-3 MS
Matrix: Water
Analysis Batch: 545391

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	321		ug/L		80	68 - 122
Surrogate		MS %Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		96							38 - 134

Lab Sample ID: 380-140202-C-3 MSD
Matrix: Water
Analysis Batch: 545391

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	322		ug/L		81	68 - 122	1	18
Surrogate		MSD %Recovery		MSD Qualifier					Limits		
4-Bromofluorobenzene (Surr)		95							38 - 134		

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

Lab Sample ID: MB 570-542436/1-A
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 542436

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		03/07/25 16:09	03/15/25 04:55	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		03/07/25 16:09	03/15/25 04:55	1
C8-C18	<25		25	ug/L		03/07/25 16:09	03/15/25 04:55	1
Surrogate		MB %Recovery				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)		86				03/07/25 16:09	03/15/25 04:55	1

Lab Sample ID: LCS 570-542436/2-A
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1390		ug/L		87	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-139220-1
SDG: Weekly

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

Lab Sample ID: LCS 570-542436/2-A
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542436

	LCS %Recovery	LCS Qualifier	Limits
<i>n-Octacosane (Surr)</i>	82		60 - 130

Lab Sample ID: LCSD 570-542436/3-A
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 542436

	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	1600	1430		ug/L		90	56 - 127	3	23

	LCSD %Recovery	LCSD Qualifier	Limits
<i>n-Octacosane (Surr)</i>	82		60 - 130

Lab Sample ID: MRL 570-542436/4-A
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542436

	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	0.0245	J	mg/L		122	50 - 150

	MRL %Recovery	MRL Qualifier	Limits
<i>n-Octacosane (Surr)</i>	82		60 - 130

Lab Sample ID: 380-138874-B-1-A MS
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 542436

	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<26		1680	1570		ug/L		93	70 - 130

	MS %Recovery	MS Qualifier	Limits
<i>n-Octacosane (Surr)</i>	85		60 - 130

Lab Sample ID: 380-138874-B-1-B MSD
Matrix: Water
Analysis Batch: 545293

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 542436

	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	<26		1680	1580		ug/L		94	70 - 130	1	20

	MSD %Recovery	MSD Qualifier	Limits
<i>n-Octacosane (Surr)</i>	84		60 - 130

QC Association Summary

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

Job ID: 380-139220-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 140713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-140713/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-140713/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-140713/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-140713/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-139220-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
380-139243-I-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 140861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	140713
MB 380-140713/21-A	Method Blank	Total/NA	Water	525.2	140713
LCS 380-140713/23-A	Lab Control Sample	Total/NA	Water	525.2	140713
LCSD 380-140713/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	140713
MRL 380-140713/22-A	Lab Control Sample	Total/NA	Water	525.2	140713
380-139220-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	140713
380-139243-I-1-A DU	Duplicate	Total/NA	Water	525.2	140713

Prep Batch: 542082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-542082/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-542082/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-542082/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
570-221020-E-2-A MS	Matrix Spike	Total/NA	Water	625.1	
570-221020-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 543594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	542082
MB 570-542082/1-A	Method Blank	Total/NA	Water	625.1 SIM	542082
LCS 570-542082/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	542082
LCSD 570-542082/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	542082
570-221020-E-2-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	542082
570-221020-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	542082

Analysis Batch: 544507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	542082
MB 570-542082/1-A	Method Blank	Total/NA	Water	625.1	542082

GC VOA

Analysis Batch: 545391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-139220-2	TRIP BLANK	Total/NA	Water	8015B GRO LL	
MB 570-545391/5	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-545391/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-545391/4	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-545391/6	Lab Control Sample	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-139220-1
 SDG: Weekly

GC VOA (Continued)

Analysis Batch: 545391 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-140202-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-140202-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 542436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-542436/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-542436/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-542436/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-542436/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-138874-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-138874-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 545293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139220-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	542436
MB 570-542436/1-A	Method Blank	Total/NA	Water	8015B	542436
LCS 570-542436/2-A	Lab Control Sample	Total/NA	Water	8015B	542436
LCSD 570-542436/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	542436
MRL 570-542436/4-A	Lab Control Sample	Total/NA	Water	8015B	542436
380-138874-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	542436
380-138874-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	542436

Lab Chronicle

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

Job ID: 380-139220-1
 SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-139220-1

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			140713	KRD3	EA POM	03/09/25 08:38
Total/NA	Analysis	525.2		1	140861	Q8LA	EA POM	03/10/25 13:49
Total/NA	Prep	625.1			542082	UD4J	EET CAL 4	03/06/25 19:41
Total/NA	Analysis	625.1		1	544507	J7WE	EET CAL 4	03/13/25 13:32
Total/NA	Prep	625.1			542082	UD4J	EET CAL 4	03/06/25 19:41
Total/NA	Analysis	625.1 SIM		1	543594	PQS1	EET CAL 4	03/11/25 17:15
Total/NA	Analysis	8015B GRO LL		1	545391	BH4T	EET CAL 4	03/15/25 18:42
Total/NA	Prep	3510C			542436	TVD6	EET CAL 4	03/07/25 16:10
Total/NA	Analysis	8015B		1	545293	E5RH	EET CAL 4	03/15/25 09:08

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-139220-2

Date Collected: 03/04/25 10:00

Matrix: Water

Date Received: 03/06/25 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	545391	BH4T	EET CAL 4	03/15/25 12:53

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: 380-139220-1
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	Water	1-Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4' DDT
525.2	525.2	Water	Acetochlor
525.2	525.2	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor

Laboratory: Eurofins Calscience

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

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

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-139220-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

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

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Method Summary

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

Job ID: 380-139220-1
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: 380-139220-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-139220-1	HALAWA SHAFT VIEWING POOL	Water	03/04/25 10:00	03/06/25 10:12
380-139220-2	TRIP BLANK	Water	03/04/25 10:00	03/06/25 10:12

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- 11
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- 14
- 15
- 16

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-139220-1

SDG Number: Weekly

Login Number: 139220

List Number: 1

Creator: Edrosa, Rey

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	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: 380-139220-1

SDG Number: Weekly

Login Number: 139220

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 03/06/25 06:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
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.	False	

