

ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/20/2024 8:34:35 AM

JOB DESCRIPTION

RED-HILL
525.2
RUSH Weekly Red Hill

JOB NUMBER

380-87230-2

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



Generated
3/20/2024 8:34:35 AM

Authorized for release by
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106



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	15
Surrogate Summary	17
QC Sample Results	18
QC Association Summary	29
Lab Chronicle	30
Certification Summary	31
Method Summary	33
Sample Summary	34
Chain of Custody	35
Receipt Checklists	36

Definitions/Glossary

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

Job ID: 380-87230-2
SDG: 525.2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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.

Glossary

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

Case Narrative

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

Job ID: 380-87230-2

Job ID: 380-87230-2

Eurofins Eaton Analytical Pomona

Job Narrative 380-87230-2

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 3/14/2024 10:04 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2°C, 1.8°C and 2.0°C.

GC/MS Semi VOA

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: 380-87230-2
SDG: 525.2

Client Sample ID: MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-87230-1

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-87230-2

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-87230-3

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
PWSID Number: HI0000331

Lab Sample ID: 380-87230-4

No Detections.

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

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-87230-1

Date Collected: 03/11/24 09:59

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2,4'-DDD	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2,4'-DDE	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2,4'-DDT	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
2-Methylnaphthalene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
4,4'-DDD	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
4,4'-DDE	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
4,4'-DDT	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Acenaphthene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Acenaphthylene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Acetochlor	<0.098	*+	0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Alachlor	<0.049	*+	0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
alpha-BHC	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
alpha-Chlordane	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Anthracene	<0.020		0.020	ug/L		03/17/24 10:25	03/18/24 18:34	1
Atrazine	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Benz(a)anthracene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Benzo[a]pyrene	<0.020		0.020	ug/L		03/17/24 10:25	03/18/24 18:34	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		03/17/24 10:25	03/18/24 18:34	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		03/17/24 10:25	03/18/24 18:34	1
beta-BHC	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		03/17/24 10:25	03/18/24 18:34	1
Bromacil	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Butachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Butylbenzylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 18:34	1
Chlorobenzilate	<0.098	*+	0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Chloroneb	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Chlorpyrifos	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Chrysene	<0.020		0.020	ug/L		03/17/24 10:25	03/18/24 18:34	1
delta-BHC	<0.098	^3+	0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Di(2-ethylhexyl)adipate	<0.59	B *+	0.59	ug/L		03/17/24 10:25	03/18/24 18:34	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Dieldrin	<0.20		0.20	ug/L		03/17/24 10:25	03/18/24 18:34	1
Diethylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 18:34	1
Dimethylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 18:34	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		03/17/24 10:25	03/18/24 18:34	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Endosulfan II (Beta)	<0.098	*+	0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Endosulfan sulfate	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Endrin	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Endrin aldehyde	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
EPTC	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Fluoranthene	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-87230-1

Date Collected: 03/11/24 09:59

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
gamma-Chlordane	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Heptachlor	<0.039		0.039	ug/L		03/17/24 10:25	03/18/24 18:34	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Isophorone	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 18:34	1
Lindane	<0.039	*+ ^+	0.039	ug/L		03/17/24 10:25	03/18/24 18:34	1
Malathion	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Methoxychlor	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Metolachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Molinate	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Naphthalene	<0.29		0.29	ug/L		03/17/24 10:25	03/18/24 18:34	1
Parathion	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Phenanthrene	<0.039		0.039	ug/L		03/17/24 10:25	03/18/24 18:34	1
Propachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Pyrene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Simazine	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Terbacil	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Terbutylazine	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1
Thiobencarb	<0.20		0.20	ug/L		03/17/24 10:25	03/18/24 18:34	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		03/17/24 10:25	03/18/24 18:34	1
trans-Nonachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 18:34	1
Trifluralin	<0.098		0.098	ug/L		03/17/24 10:25	03/18/24 18:34	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	03/17/24 10:25	03/18/24 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	109		70 - 130	03/17/24 10:25	03/18/24 18:34	1
Perylene-d12	93		70 - 130	03/17/24 10:25	03/18/24 18:34	1
Triphenylphosphate	94		70 - 130	03/17/24 10:25	03/18/24 18:34	1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-87230-2

Date Collected: 03/11/24 11:04

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2,4'-DDD	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2,4'-DDE	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2,4'-DDT	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
2-Methylnaphthalene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
4,4'-DDD	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
4,4'-DDE	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-87230-2

Date Collected: 03/11/24 11:04

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Acenaphthene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Acenaphthylene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Acetochlor	<0.099	*+	0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Alachlor	<0.049	*+	0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
alpha-BHC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
alpha-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Anthracene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 18:53	1
Atrazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Benz(a)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Benzo[a]pyrene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 18:53	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 18:53	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 18:53	1
beta-BHC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		03/17/24 11:34	03/18/24 18:53	1
Bromacil	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Butachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Butylbenzylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 18:53	1
Chlorobenzilate	<0.099	*+	0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Chloroneb	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Chlorpyrifos	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Chrysene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 18:53	1
delta-BHC	<0.099	^3+	0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Di(2-ethylhexyl)adipate	<0.59	B *+	0.59	ug/L		03/17/24 11:34	03/18/24 18:53	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Dieldrin	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 18:53	1
Diethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 18:53	1
Dimethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 18:53	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		03/17/24 11:34	03/18/24 18:53	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Endosulfan II (Beta)	<0.099	*+	0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Endosulfan sulfate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Endrin	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Endrin aldehyde	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
EPTC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Fluoranthene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Fluorene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
gamma-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Heptachlor	<0.040		0.040	ug/L		03/17/24 11:34	03/18/24 18:53	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Isophorone	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 18:53	1
Lindane	<0.040	*+ ^+	0.040	ug/L		03/17/24 11:34	03/18/24 18:53	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-87230-2

Date Collected: 03/11/24 11:04

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Malathion	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Methoxychlor	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Metolachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Molinate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Naphthalene	<0.30		0.30	ug/L		03/17/24 11:34	03/18/24 18:53	1
Parathion	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Phenanthrene	<0.040		0.040	ug/L		03/17/24 11:34	03/18/24 18:53	1
Propachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Simazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Terbacil	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Terbutylazine	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1
Thiobencarb	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 18:53	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 18:53	1
trans-Nonachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 18:53	1
Trifluralin	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 18:53	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	03/17/24 11:34	03/18/24 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	109		70 - 130	03/17/24 11:34	03/18/24 18:53	1
Perylene-d12	96		70 - 130	03/17/24 11:34	03/18/24 18:53	1
Triphenylphosphate	92		70 - 130	03/17/24 11:34	03/18/24 18:53	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-87230-3

Date Collected: 03/11/24 11:28

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2,4'-DDD	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2,4'-DDE	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2,4'-DDT	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
2-Methylnaphthalene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
4,4'-DDD	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
4,4'-DDE	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
4,4'-DDT	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Acenaphthene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Acenaphthylene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Acetochlor	<0.099	+	0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Alachlor	<0.049	+	0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
alpha-BHC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
alpha-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Anthracene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:13	1
Atrazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-87230-3

Date Collected: 03/11/24 11:28

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benz(a)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Benzo[a]pyrene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:13	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:13	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:13	1
beta-BHC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		03/17/24 11:34	03/18/24 19:13	1
Bromacil	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Butachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Butylbenzylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:13	1
Chlorobenzilate	<0.099	*+	0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Chloroneb	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Chlorpyrifos	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Chrysene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:13	1
delta-BHC	<0.099	^3+	0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Di(2-ethylhexyl)adipate	<0.59	B *+	0.59	ug/L		03/17/24 11:34	03/18/24 19:13	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Dieldrin	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:13	1
Diethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:13	1
Dimethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:13	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		03/17/24 11:34	03/18/24 19:13	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Endosulfan II (Beta)	<0.099	*+	0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Endosulfan sulfate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Endrin	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Endrin aldehyde	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
EPTC	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Fluoranthene	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Fluorene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
gamma-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Heptachlor	<0.039		0.039	ug/L		03/17/24 11:34	03/18/24 19:13	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Isophorone	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:13	1
Lindane	<0.039	*+ ^+	0.039	ug/L		03/17/24 11:34	03/18/24 19:13	1
Malathion	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Methoxychlor	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Metolachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Molinate	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Naphthalene	<0.30		0.30	ug/L		03/17/24 11:34	03/18/24 19:13	1
Parathion	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Phenanthrene	<0.039		0.039	ug/L		03/17/24 11:34	03/18/24 19:13	1
Propachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-87230-3

Date Collected: 03/11/24 11:28

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Simazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Terbacil	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Terbutylazine	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1
Thiobencarb	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:13	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:13	1
trans-Nonachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:13	1
Trifluralin	<0.099		0.099	ug/L		03/17/24 11:34	03/18/24 19:13	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Cyclic octaatomic sulfur	0.55	T J N	ug/L		6.37	10544-50-0	03/17/24 11:34	03/18/24 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	110		70 - 130	03/17/24 11:34	03/18/24 19:13	1
Perylene-d12	96		70 - 130	03/17/24 11:34	03/18/24 19:13	1
Triphenylphosphate	94		70 - 130	03/17/24 11:34	03/18/24 19:13	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-87230-4

Date Collected: 03/11/24 10:37

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2,4'-DDD	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2,4'-DDE	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2,4'-DDT	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
2-Methylnaphthalene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
4,4'-DDD	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
4,4'-DDE	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
4,4'-DDT	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Acenaphthene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Acenaphthylene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Acetochlor	<0.098	+	0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Alachlor	<0.049	+	0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
alpha-BHC	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
alpha-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Anthracene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:33	1
Atrazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Benz(a)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Benzo[a]pyrene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:33	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:33	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:33	1
beta-BHC	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		03/17/24 11:34	03/18/24 19:33	1
Bromacil	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Butachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-87230-2
 SDG: 525.2

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-87230-4

Date Collected: 03/11/24 10:37

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butylbenzylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:33	1
Chlorobenzilate	<0.098	*+	0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Chloroneb	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Chlorpyrifos	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Chrysene	<0.020		0.020	ug/L		03/17/24 11:34	03/18/24 19:33	1
delta-BHC	<0.098	^3+	0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Di(2-ethylhexyl)adipate	<0.59	B *+	0.59	ug/L		03/17/24 11:34	03/18/24 19:33	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Dieldrin	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:33	1
Diethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:33	1
Dimethylphthalate	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:33	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		03/17/24 11:34	03/18/24 19:33	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Endosulfan II (Beta)	<0.098	*+	0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Endosulfan sulfate	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Endrin	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Endrin aldehyde	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
EPTC	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Fluoranthene	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Fluorene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
gamma-Chlordane	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Heptachlor	<0.039		0.039	ug/L		03/17/24 11:34	03/18/24 19:33	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Isophorone	<0.49		0.49	ug/L		03/17/24 11:34	03/18/24 19:33	1
Lindane	<0.039	*+ ^+	0.039	ug/L		03/17/24 11:34	03/18/24 19:33	1
Malathion	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Methoxychlor	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Metolachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Molinate	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Naphthalene	<0.29		0.29	ug/L		03/17/24 11:34	03/18/24 19:33	1
Parathion	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Phenanthrene	<0.039		0.039	ug/L		03/17/24 11:34	03/18/24 19:33	1
Propachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Pyrene	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Simazine	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Terbacil	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Terbutylazine	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1
Thiobencarb	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:33	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		03/17/24 11:34	03/18/24 19:33	1
trans-Nonachlor	<0.049		0.049	ug/L		03/17/24 11:34	03/18/24 19:33	1
Trifluralin	<0.098		0.098	ug/L		03/17/24 11:34	03/18/24 19:33	1

Client Sample Results

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

Job ID: 380-87230-2
 SDG: 525.2

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-87230-4

Date Collected: 03/11/24 10:37

Matrix: Drinking Water

Date Received: 03/14/24 10:04

PWSID Number: HI0000331

<u>Tentatively Identified Compound</u>	<u>Est. Result</u>	<u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>RT</u>	<u>CAS No.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>03/17/24 11:34</i>	<i>03/18/24 19:33</i>	<i>1</i>
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
2-Nitro-m-xylene	110		70 - 130				03/17/24 11:34	03/18/24 19:33	1
Perylene-d12	95		70 - 130				03/17/24 11:34	03/18/24 19:33	1
Triphenylphosphate	90		70 - 130				03/17/24 11:34	03/18/24 19:33	1

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

Action Limit Summary

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-87230-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049	*+	ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2		0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6		0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	B **	ug/L	400		0.59	525.2	Total/NA
Endrin	<0.098		ug/L	2		0.098	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4		0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2		0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1		0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50		0.049	525.2	Total/NA
Lindane	<0.039	*+ ^+	ug/L	0.2		0.039	525.2	Total/NA
Methoxychlor	<0.098		ug/L	40		0.098	525.2	Total/NA
Simazine	<0.049		ug/L	4		0.049	525.2	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-87230-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049	*+	ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2		0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6		0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	B **	ug/L	400		0.59	525.2	Total/NA
Endrin	<0.099		ug/L	2		0.099	525.2	Total/NA
Heptachlor	<0.040		ug/L	0.4		0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2		0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1		0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50		0.049	525.2	Total/NA
Lindane	<0.040	*+ ^+	ug/L	0.2		0.040	525.2	Total/NA
Methoxychlor	<0.099		ug/L	40		0.099	525.2	Total/NA
Simazine	<0.049		ug/L	4		0.049	525.2	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-87230-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049	*+	ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-87230-2
SDG: 525.2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(Continued)

Lab Sample ID: 380-87230-3

PWSID Number: HI0000331

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			
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	B **	ug/L	400	0.59	525.2	Total/NA
Endrin	<0.099		ug/L	2	0.099	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.039	*+ ^+	ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.099		ug/L	40	0.099	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-87230-4

PWSID Number: HI0000331

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049	*+	ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	B **	ug/L	400	0.59	525.2	Total/NA
Endrin	<0.098		ug/L	2	0.098	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.039	*+ ^+	ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.098		ug/L	40	0.098	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-87230-2
 SDG: 525.2

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-87230-1	MOANALUA WELLS	109	93	94
380-87230-2	AIEA GULCH WELLS PUMP 2	109	96	92
380-87230-3	AIEA WELLS PUMPS 1&2 (260) P2	110	96	94
380-87230-4	HALAWA WELLS UNITS 1 & 2 P1	110	95	90

Surrogate Legend

2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-87166-B-1-A MS	Matrix Spike	109	96	97
380-87201-S-1-A DU	Duplicate	111	96	100
LCS 380-81881/23-A	Lab Control Sample	109	93	97
LCSD 380-81881/24-A	Lab Control Sample Dup	112	95	95
MB 380-81881/21-A	Method Blank	110	89	96
MRL 380-81881/22-A	Lab Control Sample	109	82	94

Surrogate Legend

2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: MB 380-81881/21-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81881

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2,4'-DDD	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2,4'-DDE	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2,4'-DDT	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
2-Methylnaphthalene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
4,4'-DDD	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
4,4'-DDE	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
4,4'-DDT	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Acenaphthene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Acenaphthylene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Acetochlor	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Alachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
alpha-BHC	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
alpha-Chlordane	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Anthracene	<0.019		0.019	ug/L		03/17/24 10:25	03/18/24 16:14	1
Atrazine	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Benz(a)anthracene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Benzo[a]pyrene	<0.019		0.019	ug/L		03/17/24 10:25	03/18/24 16:14	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		03/17/24 10:25	03/18/24 16:14	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		03/17/24 10:25	03/18/24 16:14	1
beta-BHC	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		03/17/24 10:25	03/18/24 16:14	1
Bromacil	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Butachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Butylbenzylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 16:14	1
Chlorobenzilate	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Chloroneb	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Chlorpyrifos	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Chrysene	<0.019		0.019	ug/L		03/17/24 10:25	03/18/24 16:14	1
delta-BHC	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Di(2-ethylhexyl)adipate	2.26	B	0.58	ug/L		03/17/24 10:25	03/18/24 16:14	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Dieldrin	<0.19		0.19	ug/L		03/17/24 10:25	03/18/24 16:14	1
Diethylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 16:14	1
Dimethylphthalate	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 16:14	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		03/17/24 10:25	03/18/24 16:14	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Endosulfan sulfate	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Endrin	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Endrin aldehyde	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
EPTC	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: MB 380-81881/21-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81881

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Fluorene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
gamma-Chlordane	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Heptachlor	<0.039		0.039	ug/L		03/17/24 10:25	03/18/24 16:14	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Hexachlorobenzene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Isophorone	<0.49		0.49	ug/L		03/17/24 10:25	03/18/24 16:14	1
Lindane	<0.039	^+	0.039	ug/L		03/17/24 10:25	03/18/24 16:14	1
Malathion	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Methoxychlor	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Metolachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Molinate	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Naphthalene	<0.29		0.29	ug/L		03/17/24 10:25	03/18/24 16:14	1
Parathion	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Phenanthrene	<0.039		0.039	ug/L		03/17/24 10:25	03/18/24 16:14	1
Propachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Pyrene	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Simazine	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Terbacil	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Terbutylazine	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1
Thiobencarb	<0.19		0.19	ug/L		03/17/24 10:25	03/18/24 16:14	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		03/17/24 10:25	03/18/24 16:14	1
trans-Nonachlor	<0.049		0.049	ug/L		03/17/24 10:25	03/18/24 16:14	1
Trifluralin	<0.097		0.097	ug/L		03/17/24 10:25	03/18/24 16:14	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
13-Docosenamido, (Z)-	0.520	T J N	ug/L		9.50	112-84-5	03/17/24 10:25	03/18/24 16:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	110		70 - 130	03/17/24 10:25	03/18/24 16:14	1
Perylene-d12	89		70 - 130	03/17/24 10:25	03/18/24 16:14	1
Triphenylphosphate	96		70 - 130	03/17/24 10:25	03/18/24 16:14	1

Lab Sample ID: LCS 380-81881/23-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.95	2.08		ug/L		107	70 - 130
2,4'-DDD	1.95	2.09		ug/L		107	70 - 130
2,4'-DDE	1.95	2.28		ug/L		117	70 - 130
2,4'-DDT	1.95	1.99		ug/L		102	70 - 130
2,4-Dinitrotoluene	1.95	2.01		ug/L		103	70 - 130
2,6-Dinitrotoluene	1.95	1.98		ug/L		101	70 - 130
2-Methylnaphthalene	1.95	2.08		ug/L		107	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: LCS 380-81881/23-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.95	2.17		ug/L		111	70 - 130
4,4'-DDE	1.95	1.83		ug/L		94	70 - 130
4,4'-DDT	1.95	1.97		ug/L		101	70 - 130
Acenaphthene	1.95	2.21		ug/L		113	70 - 130
Acenaphthylene	1.95	2.20		ug/L		113	70 - 130
Acetochlor	1.95	2.49		ug/L		128	70 - 130
Alachlor	1.95	2.54	*+	ug/L		131	70 - 130
alpha-BHC	1.95	2.40		ug/L		123	70 - 130
alpha-Chlordane	1.95	1.78		ug/L		91	70 - 130
Anthracene	1.95	1.93		ug/L		99	70 - 130
Atrazine	1.95	2.18		ug/L		112	70 - 130
Benz(a)anthracene	1.95	2.16		ug/L		111	70 - 130
Benzo[a]pyrene	1.95	1.74		ug/L		89	70 - 130
Benzo[b]fluoranthene	1.95	1.93		ug/L		99	70 - 130
Benzo[g,h,i]perylene	1.95	2.16		ug/L		111	70 - 130
Benzo[k]fluoranthene	1.95	1.92		ug/L		98	70 - 130
beta-BHC	1.95	2.49		ug/L		128	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.28		ug/L		117	70 - 130
Bromacil	1.95	2.05		ug/L		105	70 - 130
Butachlor	1.95	2.54		ug/L		130	70 - 130
Butylbenzylphthalate	1.95	2.47		ug/L		127	70 - 130
Chlorobenzilate	1.95	2.79	*+	ug/L		143	70 - 130
Chloroneb	1.95	2.25		ug/L		116	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.14		ug/L		110	70 - 130
Chlorpyrifos	1.95	2.38		ug/L		122	70 - 130
Chrysene	1.95	1.92		ug/L		99	70 - 130
delta-BHC	1.95	2.51		ug/L		129	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.55	*+	ug/L		131	70 - 130
Dibenz(a,h)anthracene	1.95	1.91		ug/L		98	70 - 130
Diclorvos (DDVP)	1.95	2.40		ug/L		123	70 - 130
Dieldrin	1.95	2.22		ug/L		114	70 - 130
Diethylphthalate	1.95	2.35		ug/L		120	70 - 130
Dimethylphthalate	1.95	2.36		ug/L		121	70 - 130
Di-n-butyl phthalate	3.90	4.51		ug/L		116	70 - 130
Di-n-octyl phthalate	1.95	2.05		ug/L		105	70 - 130
Endosulfan I (Alpha)	1.95	2.37		ug/L		122	70 - 130
Endosulfan II (Beta)	1.95	2.53		ug/L		130	70 - 130
Endosulfan sulfate	1.95	2.19		ug/L		112	70 - 130
Endrin	1.95	2.40		ug/L		123	70 - 130
Endrin aldehyde	1.95	1.63		ug/L		84	70 - 130
EPTC	1.95	2.38		ug/L		122	70 - 130
Fluoranthene	1.95	2.21		ug/L		113	70 - 130
Fluorene	1.95	2.18		ug/L		112	70 - 130
gamma-Chlordane	1.95	1.77		ug/L		91	70 - 130
Heptachlor	1.95	1.99		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.76		ug/L		90	70 - 130
Hexachlorobenzene	1.95	2.02		ug/L		104	70 - 130
Hexachlorocyclopentadiene	1.95	2.18		ug/L		112	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.88		ug/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: LCS 380-81881/23-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.95	2.09		ug/L		107	70 - 130
Lindane	1.95	2.56	*+ ^+	ug/L		131	70 - 130
Malathion	1.95	2.22		ug/L		114	70 - 130
Methoxychlor	1.95	2.00		ug/L		103	70 - 130
Metolachlor	1.95	2.37		ug/L		121	70 - 130
Molinate	1.95	2.26		ug/L		116	70 - 130
Naphthalene	1.95	1.98		ug/L		101	70 - 130
Parathion	1.95	2.40		ug/L		123	70 - 130
Pendimethalin (Penoxaline)	1.95	1.92		ug/L		98	70 - 130
Phenanthrene	1.95	2.18		ug/L		112	70 - 130
Propachlor	1.95	2.47		ug/L		127	70 - 130
Pyrene	1.95	2.19		ug/L		112	70 - 130
Simazine	1.95	2.34		ug/L		120	70 - 130
Terbacil	1.95	2.39		ug/L		123	70 - 130
Terbutylazine	1.95	2.19		ug/L		112	70 - 130
Thiobencarb	1.95	2.29		ug/L		118	70 - 130
trans-Nonachlor	1.95	1.67		ug/L		86	70 - 130
Trifluralin	1.95	2.12		ug/L		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	109		70 - 130
Perylene-d12	93		70 - 130
Triphenylphosphate	97		70 - 130

Lab Sample ID: LCSD 380-81881/24-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.94	2.14		ug/L		110	70 - 130	3	20
2,4'-DDD	1.94	2.09		ug/L		107	70 - 130	0	20
2,4'-DDE	1.94	2.29		ug/L		118	70 - 130	0	20
2,4'-DDT	1.94	1.98		ug/L		102	70 - 130	0	20
2,4-Dinitrotoluene	1.94	2.00		ug/L		103	70 - 130	0	20
2,6-Dinitrotoluene	1.94	1.95		ug/L		100	70 - 130	1	20
2-Methylnaphthalene	1.94	2.10		ug/L		108	70 - 130	1	20
4,4'-DDD	1.94	2.14		ug/L		110	70 - 130	1	20
4,4'-DDE	1.94	1.76		ug/L		91	70 - 130	4	20
4,4'-DDT	1.94	1.95		ug/L		101	70 - 130	1	20
Acenaphthene	1.94	2.19		ug/L		113	70 - 130	1	20
Acenaphthylene	1.94	2.20		ug/L		113	70 - 130	0	20
Acetochlor	1.94	2.56	*+	ug/L		131	70 - 130	2	20
Alachlor	1.94	2.60	*+	ug/L		134	70 - 130	2	20
alpha-BHC	1.94	2.40		ug/L		124	70 - 130	0	20
alpha-Chlordane	1.94	1.77		ug/L		91	70 - 130	0	20
Anthracene	1.94	1.96		ug/L		101	70 - 130	2	20
Atrazine	1.94	2.17		ug/L		111	70 - 130	1	20
Benz(a)anthracene	1.94	2.13		ug/L		110	70 - 130	1	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: LCSD 380-81881/24-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Benzo[a]pyrene	1.94	1.80		ug/L		92	70 - 130	3	20	
Benzo[b]fluoranthene	1.94	2.01		ug/L		104	70 - 130	4	20	
Benzo[g,h,i]perylene	1.94	2.29		ug/L		118	70 - 130	6	20	
Benzo[k]fluoranthene	1.94	1.93		ug/L		99	70 - 130	1	20	
beta-BHC	1.94	2.47		ug/L		127	70 - 130	1	20	
Bis(2-ethylhexyl) phthalate	1.94	2.30		ug/L		118	70 - 130	1	20	
Bromacil	1.94	1.99		ug/L		102	70 - 130	3	20	
Butachlor	1.94	2.50		ug/L		128	70 - 130	2	20	
Butylbenzylphthalate	1.94	2.45		ug/L		126	70 - 130	1	20	
Chlorobenzilate	1.94	2.84	*+	ug/L		146	70 - 130	2	20	
Chloroneb	1.94	2.30		ug/L		118	70 - 130	2	20	
Chlorothalonil (Draconil, Bravo)	1.94	2.11		ug/L		108	70 - 130	1	20	
Chlorpyrifos	1.94	2.35		ug/L		121	70 - 130	1	20	
Chrysene	1.94	2.03		ug/L		105	70 - 130	6	20	
delta-BHC	1.94	2.49		ug/L		128	70 - 130	1	20	
Di(2-ethylhexyl)adipate	1.94	2.49		ug/L		128	70 - 130	3	20	
Dibenz(a,h)anthracene	1.94	2.03		ug/L		104	70 - 130	6	20	
Diclorvos (DDVP)	1.94	2.45		ug/L		126	70 - 130	2	20	
Dieldrin	1.94	2.27		ug/L		117	70 - 130	2	20	
Diethylphthalate	1.94	2.36		ug/L		121	70 - 130	1	20	
Dimethylphthalate	1.94	2.41		ug/L		124	70 - 130	2	20	
Di-n-butyl phthalate	3.89	4.58		ug/L		118	70 - 130	2	20	
Di-n-octyl phthalate	1.94	2.01		ug/L		104	70 - 130	2	20	
Endosulfan I (Alpha)	1.94	2.38		ug/L		122	70 - 130	0	20	
Endosulfan II (Beta)	1.94	2.57	*+	ug/L		132	70 - 130	2	20	
Endosulfan sulfate	1.94	2.25		ug/L		116	70 - 130	3	20	
Endrin	1.94	2.42		ug/L		125	70 - 130	1	20	
Endrin aldehyde	1.94	1.68		ug/L		87	70 - 130	3	20	
EPTC	1.94	2.41		ug/L		124	70 - 130	1	20	
Fluoranthene	1.94	2.17		ug/L		111	70 - 130	2	20	
Fluorene	1.94	2.22		ug/L		114	70 - 130	2	20	
gamma-Chlordane	1.94	1.80		ug/L		93	70 - 130	2	20	
Heptachlor	1.94	2.08		ug/L		107	70 - 130	4	20	
Heptachlor epoxide (isomer B)	1.94	1.75		ug/L		90	70 - 130	0	20	
Hexachlorobenzene	1.94	2.02		ug/L		104	70 - 130	0	20	
Hexachlorocyclopentadiene	1.94	2.17		ug/L		112	70 - 130	0	20	
Indeno[1,2,3-cd]pyrene	1.94	2.00		ug/L		103	70 - 130	6	20	
Isophorone	1.94	2.16		ug/L		111	70 - 130	3	20	
Lindane	1.94	2.47	^+	ug/L		127	70 - 130	3	20	
Malathion	1.94	2.24		ug/L		115	70 - 130	1	20	
Methoxychlor	1.94	2.04		ug/L		105	70 - 130	2	20	
Metolachlor	1.94	2.26		ug/L		116	70 - 130	5	20	
Molinate	1.94	2.33		ug/L		120	70 - 130	3	20	
Naphthalene	1.94	2.01		ug/L		103	70 - 130	2	20	
Parathion	1.94	2.47		ug/L		127	70 - 130	3	20	
Pendimethalin (Penoxaline)	1.94	1.95		ug/L		100	70 - 130	2	20	
Phenanthrene	1.94	2.17		ug/L		111	70 - 130	1	20	
Propachlor	1.94	2.47		ug/L		127	70 - 130	0	20	
Pyrene	1.94	2.19		ug/L		113	70 - 130	0	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: LCSD 380-81881/24-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.94	2.33		ug/L		120	70 - 130	0	20
Terbacil	1.94	2.32		ug/L		120	70 - 130	3	20
Terbuthylazine	1.94	2.21		ug/L		114	70 - 130	1	20
Thiobencarb	1.94	2.27		ug/L		117	70 - 130	1	20
trans-Nonachlor	1.94	1.65		ug/L		85	70 - 130	1	20
Trifluralin	1.94	2.19		ug/L		113	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	112		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	95		70 - 130

Lab Sample ID: MRL 380-81881/22-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0977	0.0918	J	ug/L		94	50 - 150
2,4'-DDD	0.0977	0.113		ug/L		116	50 - 150
2,4'-DDE	0.0977	0.114		ug/L		117	50 - 150
2,4'-DDT	0.0977	0.104		ug/L		107	50 - 150
2,4-Dinitrotoluene	0.0977	0.0963	J	ug/L		99	50 - 150
2,6-Dinitrotoluene	0.0977	0.101		ug/L		104	50 - 150
2-Methylnaphthalene	0.0977	0.0857	J	ug/L		88	50 - 150
4,4'-DDD	0.0977	0.100		ug/L		102	50 - 150
4,4'-DDE	0.0977	0.0725	J	ug/L		74	50 - 150
4,4'-DDT	0.0977	0.100		ug/L		103	50 - 150
Acenaphthene	0.0977	0.102		ug/L		104	50 - 150
Acenaphthylene	0.0977	0.0948	J	ug/L		97	50 - 150
Acetochlor	0.0489	0.0461	J	ug/L		94	50 - 150
Alachlor	0.0489	0.0571		ug/L		117	50 - 150
alpha-BHC	0.0977	0.116		ug/L		119	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		92	50 - 150
Anthracene	0.0195	<0.019		ug/L		97	50 - 150
Atrazine	0.0489	0.0601		ug/L		123	50 - 150
Benz(a)anthracene	0.0489	0.0455	J	ug/L		93	50 - 150
Benzo[a]pyrene	0.0195	0.0166	J	ug/L		85	50 - 150
Benzo[b]fluoranthene	0.0195	0.0179	J	ug/L		91	50 - 150
Benzo[g,h,i]perylene	0.0489	0.0389	J	ug/L		80	50 - 150
Benzo[k]fluoranthene	0.0195	0.0192	J	ug/L		98	50 - 150
beta-BHC	0.0977	0.117		ug/L		120	50 - 150
Bis(2-ethylhexyl) phthalate	0.586	0.599		ug/L		102	50 - 150
Bromacil	0.0977	0.131		ug/L		134	50 - 150
Butachlor	0.0489	0.0699		ug/L		143	50 - 150
Butylbenzylphthalate	0.147	0.167	J	ug/L		114	50 - 150
Chlorobenzilate	0.0977	0.111		ug/L		114	50 - 150
Chloroneb	0.0977	0.108		ug/L		110	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0977	0.108		ug/L		111	50 - 150

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: MRL 380-81881/22-A
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0489	0.0555		ug/L		114	50 - 150
Chrysene	0.0195	0.0186	J	ug/L		95	50 - 150
delta-BHC	0.0977	0.149	^3+	ug/L		153	50 - 150
Di(2-ethylhexyl)adipate	0.293	0.355	J	ug/L		121	50 - 150
Dibenz(a,h)anthracene	0.0489	0.0448	J	ug/L		92	50 - 150
Diclorvos (DDVP)	0.0489	0.0697		ug/L		143	50 - 150
Dieldrin	0.0977	0.116	J	ug/L		119	50 - 150
Diethylphthalate	0.147	0.170	J	ug/L		116	50 - 150
Dimethylphthalate	0.293	0.317	J	ug/L		108	50 - 150
Di-n-butyl phthalate	0.293	0.412	J	ug/L		141	49 - 243
Di-n-octyl phthalate	0.0977	0.0815	J	ug/L		83	50 - 150
Endosulfan I (Alpha)	0.0977	0.108		ug/L		110	50 - 150
Endosulfan II (Beta)	0.0977	0.146		ug/L		149	50 - 150
Endosulfan sulfate	0.0977	0.110		ug/L		112	50 - 150
Endrin	0.0977	0.113		ug/L		115	50 - 150
Endrin aldehyde	0.0977	<0.082		ug/L		79	50 - 150
EPTC	0.0977	0.0883	J	ug/L		90	50 - 150
Fluoranthene	0.0489	0.0451	J	ug/L		92	50 - 150
Fluorene	0.0489	<0.049		ug/L		87	50 - 150
gamma-Chlordane	0.0244	<0.021		ug/L		68	50 - 150
Heptachlor	0.0391	0.0521		ug/L		133	50 - 150
Heptachlor epoxide (isomer B)	0.0489	0.0392	J	ug/L		80	50 - 150
Hexachlorobenzene	0.0489	<0.040		ug/L		75	50 - 150
Hexachlorocyclopentadiene	0.0489	0.0473	J	ug/L		97	50 - 150
Indeno[1,2,3-cd]pyrene	0.0489	0.0420	J	ug/L		86	50 - 150
Isophorone	0.0977	0.121	J	ug/L		124	50 - 150
Lindane	0.0391	0.0482	^+	ug/L		123	50 - 150
Malathion	0.0977	0.0972	J	ug/L		99	50 - 150
Methoxychlor	0.0977	0.0970	J	ug/L		99	50 - 150
Metolachlor	0.0489	0.0612		ug/L		125	50 - 150
Molinate	0.0977	0.0910	J	ug/L		93	50 - 150
Naphthalene	0.0977	0.0931	J	ug/L		95	50 - 150
Parathion	0.0977	0.121		ug/L		124	50 - 150
Pendimethalin (Penoxaline)	0.0977	0.0931	J	ug/L		95	50 - 150
Phenanthrene	0.0195	0.0207	J	ug/L		106	50 - 150
Propachlor	0.0489	0.0561		ug/L		115	50 - 150
Pyrene	0.0489	0.0434	J	ug/L		89	50 - 150
Simazine	0.0489	0.0679		ug/L		139	50 - 150
Terbacil	0.0977	0.127		ug/L		130	50 - 150
Terbutylazine	0.0977	0.107		ug/L		110	50 - 150
Thiobencarb	0.0977	0.129	J	ug/L		132	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		93	50 - 150
Trifluralin	0.0977	0.0960	J	ug/L		98	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	109		70 - 130
Perylene-d12	82		70 - 130
Triphenylphosphate	94		70 - 130

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: 380-87166-B-1-A MS
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.94	2.03		ug/L		105	70 - 130
2,4'-DDD	<0.098		1.94	2.10		ug/L		108	70 - 130
2,4'-DDE	<0.098		1.94	2.26		ug/L		116	70 - 130
2,4'-DDT	<0.098		1.94	2.03		ug/L		104	70 - 130
2,4-Dinitrotoluene	<0.098		1.94	1.98		ug/L		102	70 - 130
2,6-Dinitrotoluene	<0.098		1.94	1.95		ug/L		100	70 - 130
2-Methylnaphthalene	<0.098		1.94	2.02		ug/L		104	70 - 130
4,4'-DDD	<0.098		1.94	2.19		ug/L		113	70 - 130
4,4'-DDE	<0.098		1.94	1.80		ug/L		93	70 - 130
4,4'-DDT	<0.098		1.94	1.99		ug/L		102	70 - 130
Acenaphthene	<0.098		1.94	2.16		ug/L		111	70 - 130
Acenaphthylene	<0.098		1.94	2.11		ug/L		109	70 - 130
Acetochlor	<0.098	*+ F1	1.94	2.55	F1	ug/L		131	70 - 130
Alachlor	<0.049	*+ F1	1.94	2.60	F1	ug/L		134	70 - 130
alpha-BHC	<0.098		1.94	2.38		ug/L		123	70 - 130
alpha-Chlordane	<0.049		1.94	1.80		ug/L		93	70 - 130
Anthracene	<0.020	F1	1.94	0.686	F1	ug/L		35	70 - 130
Atrazine	<0.049		1.94	2.27		ug/L		117	70 - 130
Benz(a)anthracene	<0.049		1.94	1.77		ug/L		91	70 - 130
Benzo[a]pyrene	<0.020	F1	1.94	1.09	F1	ug/L		56	70 - 130
Benzo[b]fluoranthene	<0.020		1.94	2.07		ug/L		106	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	2.28		ug/L		117	70 - 130
Benzo[k]fluoranthene	<0.020		1.94	1.90		ug/L		98	70 - 130
beta-BHC	<0.098		1.94	2.51		ug/L		129	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.94	2.27		ug/L		117	70 - 130
Bromacil	<0.098		1.94	2.07		ug/L		107	70 - 130
Butachlor	<0.049		1.94	2.49		ug/L		128	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.50		ug/L		128	70 - 130
Chlorobenzilate	<0.098	*+ F1	1.94	2.87	F1	ug/L		148	70 - 130
Chloroneb	<0.098		1.94	2.28		ug/L		117	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.94	2.07		ug/L		107	70 - 130
Chlorpyrifos	<0.049		1.94	2.38		ug/L		123	70 - 130
Chrysene	<0.020		1.94	1.98		ug/L		102	70 - 130
delta-BHC	<0.098	^3+	1.94	2.51		ug/L		129	70 - 130
Di(2-ethylhexyl)adipate	<0.59	B *+	1.94	2.53		ug/L		130	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	1.93		ug/L		99	70 - 130
Diclorvos (DDVP)	<0.049		1.94	2.35		ug/L		121	70 - 130
Dieldrin	<0.20		1.94	2.24		ug/L		116	70 - 130
Diethylphthalate	<0.49		1.94	2.36		ug/L		122	70 - 130
Dimethylphthalate	<0.49		1.94	2.37		ug/L		122	70 - 130
Di-n-butyl phthalate	<0.98		3.89	4.60		ug/L		116	70 - 130
Di-n-octyl phthalate	<0.098		1.94	1.96		ug/L		101	70 - 130
Endosulfan I (Alpha)	<0.098		1.94	2.40		ug/L		124	70 - 130
Endosulfan II (Beta)	<0.098	*+ F1	1.94	2.63	F1	ug/L		135	70 - 130
Endosulfan sulfate	<0.098		1.94	2.21		ug/L		114	70 - 130
Endrin	<0.098		1.94	2.43		ug/L		125	70 - 130
Endrin aldehyde	<0.098		1.94	1.61		ug/L		83	70 - 130
EPTC	<0.098		1.94	2.33		ug/L		120	70 - 130

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: 380-87166-B-1-A MS
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoranthene	<0.098		1.94	2.18		ug/L		112	70 - 130
Fluorene	<0.049		1.94	2.20		ug/L		113	70 - 130
gamma-Chlordane	<0.049		1.94	1.73		ug/L		89	70 - 130
Heptachlor	<0.039		1.94	2.03		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	<0.049		1.94	1.82		ug/L		94	70 - 130
Hexachlorobenzene	<0.049		1.94	2.02		ug/L		104	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	1.99		ug/L		102	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	1.98		ug/L		102	70 - 130
Isophorone	<0.49		1.94	2.10		ug/L		108	70 - 130
Lindane	<0.039	*+ ^+	1.94	2.53	^+	ug/L		130	70 - 130
Malathion	<0.098		1.94	2.23		ug/L		115	70 - 130
Methoxychlor	<0.098		1.94	2.08		ug/L		107	70 - 130
Metolachlor	<0.049		1.94	2.28		ug/L		117	70 - 130
Molinate	<0.098		1.94	2.30		ug/L		119	70 - 130
Naphthalene	<0.29		1.94	1.96		ug/L		101	70 - 130
Parathion	<0.098		1.94	2.49		ug/L		128	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.94	1.99		ug/L		102	70 - 130
Phenanthrene	<0.039		1.94	2.20		ug/L		113	70 - 130
Propachlor	<0.049		1.94	2.47		ug/L		127	70 - 130
Pyrene	<0.049		1.94	2.19		ug/L		113	70 - 130
Simazine	<0.049		1.94	2.41		ug/L		124	70 - 130
Terbacil	<0.098		1.94	2.38		ug/L		123	70 - 130
Terbutylazine	<0.098		1.94	2.26		ug/L		116	70 - 130
Thiobencarb	<0.20		1.94	2.34		ug/L		120	70 - 130
trans-Nonachlor	<0.049		1.94	1.67		ug/L		86	70 - 130
Trifluralin	<0.098		1.94	2.15		ug/L		111	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	109		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	97		70 - 130

Lab Sample ID: 380-87201-S-1-A DU
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
2,4'-DDD	<0.098		<0.098		ug/L		NC	20
2,4'-DDE	<0.098		<0.098		ug/L		NC	20
2,4'-DDT	<0.098		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
4,4'-DDD	<0.098		<0.098		ug/L		NC	20
4,4'-DDE	<0.098		<0.098		ug/L		NC	20
4,4'-DDT	<0.098		<0.098		ug/L		NC	20
Acenaphthene	<0.098		<0.098		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-87230-2
SDG: 525.2

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

Lab Sample ID: 380-87201-S-1-A DU
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Acenaphthylene	<0.098		<0.098		ug/L		NC	20
Acetochlor	<0.098	*+	<0.098	*+	ug/L		NC	20
Alachlor	<0.049	*+	<0.049	*+	ug/L		NC	20
alpha-BHC	<0.098		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098	*+	<0.098	*+	ug/L		NC	20
Chloroneb	<0.098		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098	^3+	<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59	B *+	<0.59	B *+	ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.20		<0.20		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.098	*+	<0.098	*+	ug/L		NC	20
Endosulfan sulfate	<0.098		<0.098		ug/L		NC	20
Endrin	<0.098		<0.098		ug/L		NC	20
Endrin aldehyde	<0.098		<0.098		ug/L		NC	20
EPTC	<0.098		<0.098		ug/L		NC	20
Fluoranthene	<0.098		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.039		<0.039		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.049		<0.049		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.49		<0.49		ug/L		NC	20
Lindane	<0.039	*+ ^+	<0.039	*+ ^+	ug/L		NC	20
Malathion	<0.098		<0.098		ug/L		NC	20
Methoxychlor	<0.098		<0.098		ug/L		NC	20

QC Sample Results

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

Job ID: 380-87230-2
 SDG: 525.2

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

Lab Sample ID: 380-87201-S-1-A DU
Matrix: Water
Analysis Batch: 82047

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 81881

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.098		ug/L		NC	20
Naphthalene	<0.29		<0.29		ug/L		NC	20
Parathion	<0.098		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.098		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.098		<0.098		ug/L		NC	20
Terbutylazine	<0.098		<0.098		ug/L		NC	20
Thiobencarb	<0.20		<0.20		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.098		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	111		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	100		70 - 130

QC Association Summary

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

Job ID: 380-87230-2
 SDG: 525.2

GC/MS Semi VOA

Prep Batch: 81881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-87230-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	
380-87230-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	
380-87230-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	
380-87230-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	
MB 380-81881/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-81881/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-81881/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-81881/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-87166-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-87201-S-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 82047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-87230-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	81881
380-87230-2	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	81881
380-87230-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	81881
380-87230-4	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	81881
MB 380-81881/21-A	Method Blank	Total/NA	Water	525.2	81881
LCS 380-81881/23-A	Lab Control Sample	Total/NA	Water	525.2	81881
LCSD 380-81881/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	81881
MRL 380-81881/22-A	Lab Control Sample	Total/NA	Water	525.2	81881
380-87166-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	81881
380-87201-S-1-A DU	Duplicate	Total/NA	Water	525.2	81881

Lab Chronicle

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

Job ID: 380-87230-2
 SDG: 525.2

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-87230-1

Date Collected: 03/11/24 09:59

Matrix: Drinking Water

Date Received: 03/14/24 10:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			81881	N8NE	EA POM	03/17/24 10:25
Total/NA	Analysis	525.2		1	82047	UPAC	EA POM	03/18/24 18:34

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-87230-2

Date Collected: 03/11/24 11:04

Matrix: Drinking Water

Date Received: 03/14/24 10:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			81881	N8NE	EA POM	03/17/24 11:34
Total/NA	Analysis	525.2		1	82047	UPAC	EA POM	03/18/24 18:53

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-87230-3

Date Collected: 03/11/24 11:28

Matrix: Drinking Water

Date Received: 03/14/24 10:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			81881	N8NE	EA POM	03/17/24 11:34
Total/NA	Analysis	525.2		1	82047	UPAC	EA POM	03/18/24 19:13

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-87230-4

Date Collected: 03/11/24 10:37

Matrix: Drinking Water

Date Received: 03/14/24 10:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			81881	N8NE	EA POM	03/17/24 11:34
Total/NA	Analysis	525.2		1	82047	UPAC	EA POM	03/18/24 19:33

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-87230-2
SDG: 525.2

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	02-12-24 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4'-DDT
525.2	525.2	Drinking Water	Acenaphthene
525.2	525.2	Drinking Water	Acenaphthylene
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	Anthracene
525.2	525.2	Drinking Water	Benz(a)anthracene
525.2	525.2	Drinking Water	Benzo[b]fluoranthene
525.2	525.2	Drinking Water	Benzo[g,h,i]perylene
525.2	525.2	Drinking Water	Benzo[k]fluoranthene
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Bromacil
525.2	525.2	Drinking Water	Butylbenzylphthalate
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	Chrysene
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Dibenz(a,h)anthracene
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Diethylphthalate
525.2	525.2	Drinking Water	Dimethylphthalate
525.2	525.2	Drinking Water	Di-n-butyl phthalate
525.2	525.2	Drinking Water	Di-n-octyl phthalate
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	Fluoranthene
525.2	525.2	Drinking Water	Fluorene
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Indeno[1,2,3-cd]pyrene
525.2	525.2	Drinking Water	Isophorone

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

Accreditation/Certification Summary

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

Job ID: 380-87230-2
 SDG: 525.2

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Molinate
525.2	525.2	Drinking Water	Naphthalene
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Phenanthrene
525.2	525.2	Drinking Water	Pyrene
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Thiobencarb
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Drinking Water	Trifluralin

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



Method Summary

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

Job ID: 380-87230-2
SDG: 525.2

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

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

Sample Summary

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

Job ID: 380-87230-2
SDG: 525.2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-87230-1	MOANALUA WELLS	Drinking Water	03/11/24 09:59	03/14/24 10:04	HI0000331
380-87230-2	AIEA GULCH WELLS PUMP 2	Drinking Water	03/11/24 11:04	03/14/24 10:04	HI0000331
380-87230-3	AIEA WELLS PUMPS 1&2 (260) P2	Drinking Water	03/11/24 11:28	03/14/24 10:04	HI0000331
380-87230-4	HALAWA WELLS UNITS 1 & 2 P1	Drinking Water	03/11/24 10:37	03/14/24 10:04	HI0000331

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

Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia, CA 91016
 Phone (626) 386-1100



Chain of Custody Record

Client Information		Lab PM Arada Rachelle		Carrier Tracking No(s) 380-27984-2757 2	
Client Contact: Dr Ron Fenstermacher		E-Mail Rachelle.Arada@et.eurofins.com		Page Page 1 of 1	
City & County of Honolulu		PWSID		Job #	
Address 630 South Beretania Street, Chemistry Lab		Due Date Requested		Preservation Codes:	
City: Honolulu		TAT Requested (days)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State Zip HI, 96843		Compliance Project		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Phone 808-748-5091 (tel)		PO # C20525101 exp 05312023		Total Number of containers	
Email r Fenstermacher@hbws.org		WC #		X	
Project Name RED-HILL/HBWS sites Event Desc RUSH Weekly Red Hill		Project # 38001111		Special Instructions/Note	
Site SSOW#		SSOW#		chlorinated chlorinated	
Sample Identification		Field Filtered Sample (Yes or No)		537 1 DW_PREC - 537 1 Full List	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Perform MS/MSD (Yes or No)	537 2 PREC - (MOD) 525plus PLUS TICs
11-Mar-2024	0959	G	Water	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-
11-Mar-2024	1104	G	Water	2 4 2 2	2 4 2 2
11-Mar-2024	1128	G	Water	2 4 2 2	2 4 2 2
11-Mar-2024	1037	G	Water	2 4 2 2	2 4 2 2
					380-87230 COC
					LIST OF 4 ARRIVED BRANZEN - GR 03/14/2024
Possible Hazard Identification					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested I, II, III, IV, Other (specify)					
Empty Kit Relinquished by					
Relinquished by <i>bailey</i>					
Relinquished by					
Relinquished by					
Custody Seals Intact					
Custody Seal No					



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-87230-2

SDG Number: 525.2

Login Number: 87230

List Number: 1

Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and 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.	False	Refer to NCM for affected item(s).
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	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

