

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Quarterly
RUSH Weekly Red Hill

JOB NUMBER

380-131022-1

Eurofins Eaton Analytical Pomona

Job Notes

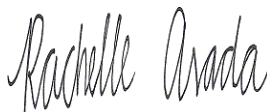
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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval 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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Authorized for release by
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Definitions/Glossary

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

Job ID: 380-131022-1
SDG: Quarterly

Qualifiers

GC/MS 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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD 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
F2	MS/MSD RPD 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.

HPLC/IC

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.

Metals

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.

General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Analyte was found in the associated method blank.
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
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

Definitions/Glossary

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

Job ID: 380-131022-1
SDG: Quarterly

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 380-131022-1

Job ID: 380-131022-1

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Job Narrative 380-131022-1

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 1/17/2025 10:28 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 0.9°C and 1.0°C.

GC/MS VOA

Method 524.2_Pres_PREC: The following samples were analyzed outside of analytical holding time due to multiple instrument malfunctions and failures: AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-131022-1) and AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-131022-2). Data excluded due to this issue. The client was contacted, and a re-sample was scheduled.

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

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 570-524601. 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 570-524601. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_SIM: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-524601 and analytical batch 570-527743 recovered outside control limits for the following analyte(s): Aniline and Benzidine. Aniline and Benzidine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-524601 and analytical batch 570-527743 recovered outside control limits for the following analytes: Aniline, Benzidine and Benzoic acid.

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.

GC Semi VOA

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

Hydrocarbons

Method 8015B_DAI: The continuing calibration verification (CCV) associated with 570-524799 recovered high and outside the control limits for Ethanol on one column. Results are confirmed on both columns and reported from the passing column. The associated samples are: AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-131022-1) and AIEA GULCH WELLS PUMP 2

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Case Narrative

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

Job ID: 380-131022-1

Job ID: 380-131022-1 (Continued)

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(331-202-TP072) (380-131022-2).

Method 8015B_DAI: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 570-524799 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

Pesticides/PCBs

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

HPLC/IC

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

Metals

Method 200.8: The continuing calibration blank (CCB) for analytical batch 380-130236 contained Arsenic above the method detection limit (MDL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

General Chemistry

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

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-131022-1

(331-201-TP071)

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	190		5.0	ug/L	1		300.0	Total/NA
Chloride	100		2.5	mg/L	5		300.0	Total/NA
Sulfate	15		1.3	mg/L	5		300.0	Total/NA
Calcium	22		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	17		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.4		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	33		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	1.9		0.90	ug/L	1		200.8	Total/NA
Copper	5.7		1.0	ug/L	1		200.8	Total/NA
Zinc	23		20	ug/L	1		200.8	Total/NA
Alkalinity	100		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	35	B ^2	2.0	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	64		2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	510		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	280		20	mg/L	1		SM 2540C	Total/NA
pH	9.7	HF		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-131022-2

(331-202-TP072)

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	220		5.0	ug/L	1		300.0	Total/NA
Chloride	91		1.0	mg/L	2		300.0	Total/NA
Sulfate	13		0.50	mg/L	2		300.0	Total/NA
Calcium	20		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	16		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.2		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	31		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	1.8		0.90	ug/L	1		200.8	Total/NA
Copper	4.0		1.0	ug/L	1		200.8	Total/NA
Alkalinity	56		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	56	B ^2	2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	420		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	260		20	mg/L	1		SM 2540C	Total/NA
pH	7.9	HF		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TB: AIEA WELLS P1 (260) (331-003-WL102)

Lab Sample ID: 380-131022-3

No Detections.

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-131022-4

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			01/23/25 02:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130				01/23/25 02:36	1
4-Bromofluorobenzene (Surr)	103		70 - 130				01/23/25 02:36	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				01/23/25 02:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
2,4'-DDE	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
2,4'-DDT	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
4,4'-DDD	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
4,4'-DDE	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
4,4'-DDT	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Acenaphthene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Acenaphthylene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Acetochlor	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Alachlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
alpha-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
alpha-Chlordane	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Anthracene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:46	1
Atrazine	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Benz(a)anthracene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:46	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:46	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:46	1
beta-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		01/21/25 06:08	01/21/25 16:46	1
Aldrin	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Bromacil	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Butachlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Butylbenzylphthalate	<0.49		0.49	ug/L		01/21/25 06:08	01/21/25 16:46	1
Chlorobenzilate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Chloroneb	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Chlorpyrifos	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Chrysene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:46	1
delta-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		01/21/25 06:08	01/21/25 16:46	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Dieldrin	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Diethylphthalate	<0.49		0.49	ug/L		01/21/25 06:08	01/21/25 16:46	1
Dimethylphthalate	<0.49		0.49	ug/L		01/21/25 06:08	01/21/25 16:46	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		01/21/25 06:08	01/21/25 16:46	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Endosulfan sulfate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Endrin	0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Endrin aldehyde	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
EPTC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Fluoranthene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Fluorene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
gamma-BHC (Lindane)	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
gamma-Chlordane	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Heptachlor	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Hexachlorobenzene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Isophorone	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Malathion	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Methoxychlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Metolachlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Molinate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Naphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Parathion	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Phenanthrene	<0.040		0.040	ug/L		01/21/25 06:08	01/21/25 16:46	1
Propachlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Pyrene	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Simazine	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Terbacil	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Terbutylazine	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Thiobencarb	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/21/25 06:08	01/21/25 16:46	1
trans-Nonachlor	<0.049		0.049	ug/L		01/21/25 06:08	01/21/25 16:46	1
Trifluralin	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
1-Methylnaphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1
2-Methylnaphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/21/25 06:08	01/21/25 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	01/21/25 06:08	01/21/25 16:46	1
Perylene-d12	95		70 - 130	01/21/25 06:08	01/21/25 16:46	1
Triphenylphosphate	104		70 - 130	01/21/25 06:08	01/21/25 16:46	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		01/20/25 13:18	01/29/25 19:45	1
2,4,5-Trichlorophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
2,4-Dichlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
2,4-Dinitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
2,6-Dichlorophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Chloronaphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Chlorophenol	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Methylphenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
2-Nitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
3/4-Methylphenol	<1.9		1.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
3-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
4,6-Dinitro-2-methylphenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Chloro-3-methylphenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Chloroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
4-Nitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
Acenaphthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Acenaphthylene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Aniline	<0.19	*- *1	0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzidine	<4.9	*- *1	4.9	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzoic acid	<9.7	*1	9.7	ug/L		01/20/25 13:18	01/29/25 19:45	1
Benzyl alcohol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
bis (2-Chloroisopropyl) ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Chrysene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Dibenzofuran	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Fluorene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Hexachloroethane	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Naphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Nitrobenzene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
N-Nitrosodi-n-propylamine	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
N-Nitrosodiphenylamine	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Pentachlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1
Phenanthrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Phenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 19:45	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 19:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		28 - 127			01/20/25 13:18	01/29/25 19:45	1
2-Fluorobiphenyl (Surr)	75		31 - 120			01/20/25 13:18	01/29/25 19:45	1
2-Fluorophenol (Surr)	48		17 - 120			01/20/25 13:18	01/29/25 19:45	1
Nitrobenzene-d5 (Surr)	77		27 - 120			01/20/25 13:18	01/29/25 19:45	1
Phenol-d6 (Surr)	31		10 - 120			01/20/25 13:18	01/29/25 19:45	1
p-Terphenyl-d14 (Surr)	78		45 - 120			01/20/25 13:18	01/29/25 19:45	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2-Pentenal, (E)-	6.5	T J N	ug/L		2.76	1576-87-0	01/20/25 13:18	01/27/25 16:49	1
Hexane, 2,3-dimethyl-	5.8	T J N	ug/L		2.85	584-94-1	01/20/25 13:18	01/27/25 16:49	1
Cyclohexane, 1-methyl-2-propyl-	6.9	T J N	ug/L		2.98	4291-79-6	01/20/25 13:18	01/27/25 16:49	1
Tetracosane	7.1	T J N	ug/L		11.52	646-31-1	01/20/25 13:18	01/27/25 16:49	1
Pentacosane	8.8	T J N	ug/L		12.02	629-99-2	01/20/25 13:18	01/27/25 16:49	1
Eicosane	9.3	T J N	ug/L		12.56	112-95-8	01/20/25 13:18	01/27/25 16:49	1
Heptadecane	7.6	T J N	ug/L		13.16	629-78-7	01/20/25 13:18	01/27/25 16:49	1
Nonadecane	4.9	T J N	ug/L		13.81	629-92-5	01/20/25 13:18	01/27/25 16:49	1
Heptadecane, 2,6,10,15-tetramethyl-	5.0	T J N	ug/L		14.52	54833-48-6	01/20/25 13:18	01/27/25 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6 Tribromophenol (Surr)	90		33 - 139				01/20/25 13:18	01/27/25 16:49	1
2-Fluorobiphenyl (Surr)	70		33 - 126				01/20/25 13:18	01/27/25 16:49	1
2-Fluorophenol (Surr)	55		12 - 120				01/20/25 13:18	01/27/25 16:49	1
Nitrobenzene-d5 (Surr)	79		36 - 120				01/20/25 13:18	01/27/25 16:49	1
Phenol-d6 (Surr)	34		10 - 120				01/20/25 13:18	01/27/25 16:49	1
p-Terphenyl-d14 (Surr)	74		47 - 131				01/20/25 13:18	01/27/25 16:49	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			01/22/25 20:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134				01/22/25 20:12	1

Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		01/19/25 20:30	01/20/25 11:45	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 11:45	1
1,2-Dibromoethane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 11:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	94		60 - 140			01/19/25 20:30	01/20/25 11:45	1

Method: EPA 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.50		0.50	ug/L		01/21/25 12:21	01/21/25 22:01	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

Method: EPA 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.070		0.070	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB-1221	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB-1232	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB-1242	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB 1248	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB-1254	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1
PCB-1260	<0.070		0.070	ug/L		01/21/25 12:21	01/21/25 22:01	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		70 - 130	01/21/25 12:21	01/21/25 22:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/20/25 15:09	01/28/25 04:02	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/20/25 15:09	01/28/25 04:02	1
C8-C18	<25		25	ug/L		01/20/25 15:09	01/28/25 04:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	79		60 - 130	01/20/25 15:09	01/28/25 04:02	1

Method: SW846 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			01/21/25 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	104		54 - 120		01/21/25 16:08	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	190		5.0	ug/L			01/25/25 05:39	1
Chloride	100		2.5	mg/L			01/18/25 14:03	5
Sulfate	15		1.3	mg/L			01/18/25 14:03	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	22		1.0	mg/L			01/20/25 16:39	1
Magnesium	17		0.10	mg/L			01/20/25 16:39	1
Potassium	2.4		1.0	mg/L			01/20/25 16:39	1
Sodium	33		1.0	mg/L			01/20/25 16:39	1

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	ug/L			01/23/25 23:00	1
Arsenic	<1.0		1.0	ug/L			01/23/25 23:00	1
Beryllium	<0.30		0.30	ug/L			01/23/25 23:00	1
Cadmium	<0.50		0.50	ug/L			01/23/25 23:00	1
Chromium	1.9		0.90	ug/L			01/23/25 23:00	1
Copper	5.7		1.0	ug/L			01/23/25 23:00	1
Lead	<0.50		0.50	ug/L			01/23/25 23:00	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

Method: EPA 200.8 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<1.0		1.0	ug/L			01/23/25 23:00	1
Selenium	<2.0		2.0	ug/L			01/23/25 23:00	1
Silver	<0.50		0.50	ug/L			01/23/25 23:00	1
Thallium	<0.30		0.30	ug/L			01/23/25 23:00	1
Zinc	23		20	ug/L			01/23/25 23 00	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	ug/L		01/24/25 11:57	01/24/25 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	100		2.0	mg/L			01/22/25 20:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	35	B ^2	2.0	mg/L			01/22/25 20:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	64		2.0	mg/L			01/22/25 20:20	1
Specific Conductance (SM 2510B)	510		2.0	umhos/cm			01/22/25 20:20	1
Total Dissolved Solids (SM 2540C)	280		20	mg/L			01/20/25 09:36	1
Fluoride (SM 4500 F C)	<0.050		0.050	mg/L			01/22/25 20:38	1
pH (SM 4500 H+ B)	9.7	HF		SU			01/22/25 20:20	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			01/20/25 16:55	1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			01/23/25 03:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130				01/23/25 03:00	1
4-Bromofluorobenzene (Surr)	98		70 - 130				01/23/25 03:00	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				01/23/25 03:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
2,4'-DDE	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
2,4'-DDT	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
4,4'-DDD	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
4,4'-DDE	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
4,4'-DDT	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Acenaphthene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Acenaphthylene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Acetochlor	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
alpha-BHC	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
alpha-Chlordane	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Anthracene	<0.019		0.019	ug/L		01/21/25 06:08	01/21/25 18:29	1
Atrazine	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Benz(a)anthracene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Benzo[a]pyrene	<0.019		0.019	ug/L		01/21/25 06:08	01/21/25 18:29	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		01/21/25 06:08	01/21/25 18:29	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		01/21/25 06:08	01/21/25 18:29	1
beta-BHC	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		01/21/25 06:08	01/21/25 18:29	1
Aldrin	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Bromacil	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Butachlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Butylbenzylphthalate	<0.48		0.48	ug/L		01/21/25 06:08	01/21/25 18:29	1
Chlorobenzilate	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Chloroneb	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Chlorpyrifos	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Chrysene	<0.019		0.019	ug/L		01/21/25 06:08	01/21/25 18:29	1
delta-BHC	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		01/21/25 06:08	01/21/25 18:29	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Dieldrin	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Diethylphthalate	<0.48		0.48	ug/L		01/21/25 06:08	01/21/25 18:29	1
Dimethylphthalate	<0.48		0.48	ug/L		01/21/25 06:08	01/21/25 18:29	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		01/21/25 06:08	01/21/25 18:29	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Endosulfan sulfate	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Endrin	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Endrin aldehyde	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
EPTC	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Fluoranthene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Fluorene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
gamma-BHC (Lindane)	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
gamma-Chlordane	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Heptachlor	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Hexachlorobenzene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Isophorone	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Malathion	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Methoxychlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Metolachlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Molinate	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Naphthalene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Parathion	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Phenanthrene	<0.039		0.039	ug/L		01/21/25 06:08	01/21/25 18:29	1
Propachlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Pyrene	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Simazine	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Terbacil	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Terbutylazine	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Thiobencarb	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		01/21/25 06:08	01/21/25 18:29	1
trans-Nonachlor	<0.048		0.048	ug/L		01/21/25 06:08	01/21/25 18:29	1
Trifluralin	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
1-Methylnaphthalene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1
2-Methylnaphthalene	<0.097		0.097	ug/L		01/21/25 06:08	01/21/25 18:29	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/21/25 06:08	01/21/25 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	01/21/25 06:08	01/21/25 18:29	1
Perylene-d12	95		70 - 130	01/21/25 06:08	01/21/25 18:29	1
Triphenylphosphate	103		70 - 130	01/21/25 06:08	01/21/25 18:29	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		01/20/25 13:18	01/29/25 20:07	1
2,4,5-Trichlorophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
2,4,6-Trichlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
2,4-Dichlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
2,4-Dinitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
2,6-Dichlorophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Chloronaphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Chlorophenol	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Methylphenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
2-Nitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
3/4-Methylphenol	<1.9		1.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
3-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
4,6-Dinitro-2-methylphenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Bromophenyl phenyl ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Chloro-3-methylphenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Chloroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Chlorophenyl phenyl ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Nitroaniline	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
4-Nitrophenol	<4.9		4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1

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Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Acenaphthylene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Aniline	<0.19	* - *1	0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzidine	<4.9	* - *1	4.9	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzoic acid	<9.7	*1	9.7	ug/L		01/20/25 13:18	01/29/25 20:07	1
Benzyl alcohol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
Bis(2-chloroethoxy)methane	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Bis(2-chloroethyl)ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
bis (2-Chloroisopropyl) ether	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Chrysene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Dibenzofuran	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Fluoranthene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Fluorene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Hexachloroethane	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Naphthalene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Nitrobenzene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
N-Nitrosodi-n-propylamine	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
N-Nitrosodiphenylamine	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Pentachlorophenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
Phenanthrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1
Phenol	<0.97		0.97	ug/L		01/20/25 13:18	01/29/25 20:07	1
Pyrene	<0.19		0.19	ug/L		01/20/25 13:18	01/29/25 20:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		28 - 127	01/20/25 13:18	01/29/25 20:07	1
2-Fluorobiphenyl (Surr)	67		31 - 120	01/20/25 13:18	01/29/25 20:07	1
2-Fluorophenol (Surr)	46		17 - 120	01/20/25 13:18	01/29/25 20:07	1
Nitrobenzene-d5 (Surr)	72		27 - 120	01/20/25 13:18	01/29/25 20:07	1
Phenol-d6 (Surr)	28		10 - 120	01/20/25 13:18	01/29/25 20:07	1
p-Terphenyl-d14 (Surr)	72		45 - 120	01/20/25 13:18	01/29/25 20:07	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
Cyclopentane, 1,2,3,4,5-pentamethyl-	5.7	T J N	ug/L		2.76	1000152-79-7	01/20/25 13:18	01/27/25 17:12	1
Hexane, 2,3-dimethyl-	5.0	T J N	ug/L		2.85	584-94-1	01/20/25 13:18	01/27/25 17:12	1
2-Pentene, 2,3,4-trimethyl-	5.7	T J N	ug/L		2.98	565-77-5	01/20/25 13:18	01/27/25 17:12	1
Cyclopentasiloxane, decamethyl-	4.8	T J N	ug/L		4.43	541-02-6	01/20/25 13:18	01/27/25 17:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		33 - 139	01/20/25 13:18	01/27/25 17:12	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		33 - 126	01/20/25 13:18	01/27/25 17:12	1
2-Fluorophenol (Surr)	49		12 - 120	01/20/25 13:18	01/27/25 17:12	1
Nitrobenzene-d5 (Surr)	68		36 - 120	01/20/25 13:18	01/27/25 17:12	1
Phenol-d6 (Surr)	29		10 - 120	01/20/25 13:18	01/27/25 17:12	1
p-Terphenyl-d14 (Surr)	69		47 - 131	01/20/25 13:18	01/27/25 17:12	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			01/22/25 20:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134				01/22/25 20:37	1

Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		01/19/25 20:30	01/20/25 12:49	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 12:49	1
1,2-Dibromoethane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 12:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	102		60 - 140			01/19/25 20:30	01/20/25 12:49	1

Method: EPA 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.51		0.51	ug/L		01/21/25 12:21	01/21/25 22:23	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1016	<0.071		0.071	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1221	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1232	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1242	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1248	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1254	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
PCB-1260	<0.071		0.071	ug/L		01/21/25 12:21	01/21/25 22:23	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		01/21/25 12:21	01/21/25 22:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		70 - 130			01/21/25 12:21	01/21/25 22:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		01/20/25 15:09	01/28/25 04:24	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		01/20/25 15:09	01/28/25 04:24	1
C8-C18	<26		26	ug/L		01/20/25 15:09	01/28/25 04:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	78		60 - 130			01/20/25 15:09	01/28/25 04:24	1

Method: SW846 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			01/21/25 16:29	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	101		54 - 120		01/21/25 16:29	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	220		5.0	ug/L			01/25/25 06:05	1
Chloride	91		1.0	mg/L			01/18/25 13:46	2
Sulfate	13		0.50	mg/L			01/18/25 13:46	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20		1.0	mg/L			01/20/25 16:40	1
Magnesium	16		0.10	mg/L			01/20/25 16:40	1
Potassium	2.2		1.0	mg/L			01/20/25 16:40	1
Sodium	31		1.0	mg/L			01/20/25 16:40	1

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	ug/L			01/23/25 23:02	1
Arsenic	<1.0		1.0	ug/L			01/23/25 23:02	1
Beryllium	<0.30		0.30	ug/L			01/23/25 23:02	1
Cadmium	<0.50		0.50	ug/L			01/23/25 23:02	1
Chromium	1.8		0.90	ug/L			01/23/25 23:02	1
Copper	4.0		1.0	ug/L			01/23/25 23:02	1
Lead	<0.50		0.50	ug/L			01/23/25 23:02	1
Nickel	<1.0		1.0	ug/L			01/23/25 23:02	1
Selenium	<2.0		2.0	ug/L			01/23/25 23:02	1
Silver	<0.50		0.50	ug/L			01/23/25 23:02	1
Thallium	<0.30		0.30	ug/L			01/23/25 23:02	1
Zinc	<20		20	ug/L			01/23/25 23:02	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	ug/L		01/24/25 11:57	01/24/25 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	56		2.0	mg/L			01/23/25 19:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	56	B ^2	2.0	mg/L			01/23/25 19:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.0		2.0	mg/L			01/23/25 19:44	1
Specific Conductance (SM 2510B)	420		2.0	umhos/cm			01/23/25 19:44	1
Total Dissolved Solids (SM 2540C)	260		20	mg/L			01/20/25 09:36	1
Fluoride (SM 4500 F C)	<0.050		0.050	mg/L			01/22/25 18:12	1
pH (SM 4500 H+ B)	7.9	HF		SU			01/23/25 19:44	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			01/20/25 16:55	1

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Client Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Client Sample ID: TB: AIEA WELLS P1 (260) (331-003-WL102)

Lab Sample ID: 380-131022-3

Date Collected: 01/15/25 09:00

Matrix: Water

Date Received: 01/17/25 10:28

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			01/22/25 23:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		38 - 134				01/22/25 23:03	1

Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		01/19/25 20:30	01/20/25 10:19	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 10:19	1
1,2-Dibromoethane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 10:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	98		60 - 140			01/19/25 20:30	01/20/25 10:19	1

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-131022-4

Date Collected: 01/15/25 09:40

Matrix: Water

Date Received: 01/17/25 10:28

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			01/22/25 23:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134				01/22/25 23:27	1

Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		01/19/25 20:30	01/20/25 09:58	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 09:58	1
1,2-Dibromoethane	<0.010		0.010	ug/L		01/19/25 20:30	01/20/25 09:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	100		60 - 140			01/19/25 20:30	01/20/25 09:58	1

Action Limit Summary

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**
PWSID Number: HI0000331

Lab Sample ID: 380-131022-1

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	HI Org Limit	EPAMCL Limit	EPAMCL S Limit	Method	Prep Type
Alachlor	<0.049		ug/L		2		525.2	Total/NA
Atrazine	<0.049		ug/L		3		525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L		0.2		525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L		6		525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L		400		525.2	Total/NA
Endrin	<0.0099		ug/L		2		525.2	Total/NA
gamma-BHC (Lindane)	<0.0099		ug/L		0.2		525.2	Total/NA
Heptachlor	<0.0099		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0099		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L		50		525.2	Total/NA
Methoxychlor	<0.049		ug/L		40		525.2	Total/NA
Simazine	<0.049		ug/L		4		525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L		0.2		625.1 SIM	Total/NA
Pentachlorophenol	<0.97		ug/L		1		625.1 SIM	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.50		ug/L		3		505	Total/NA
Chlordane (n.o.s.)	<0.10		ug/L		2		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA
Chloride	100		mg/L			250	300.0	Total/NA
Sulfate	15		mg/L			250	300.0	Total/NA
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
Beryllium	<0.30		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	1.9		ug/L		100		200.8	Total/NA
Copper	5.7		ug/L			1000	200.8	Total/NA
Lead	<0.50		ug/L		15.000		200.8	Total/NA
Selenium	<2.0		ug/L		50		200.8	Total/NA
Silver	<0.50		ug/L			100	200.8	Total/NA
Thallium	<0.30		ug/L		2		200.8	Total/NA
Zinc	23		ug/L			5000	200.8	Total/NA
Mercury	<0.20		ug/L		2		245.1	Total/NA
Total Dissolved Solids	280		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA
pH	9.7	HF	SU			6.5	SM 4500 H+ B	Total/NA

Action Limit Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-131022-2

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	HI Org Limit	EPAMCL Limit	EPAMCL S Limit	Method	Prep Type
Alachlor	<0.048		ug/L		2		525.2	Total/NA
Atrazine	<0.048		ug/L		3		525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L		0.2		525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L		6		525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L		400		525.2	Total/NA
Endrin	<0.0097		ug/L		2		525.2	Total/NA
gamma-BHC (Lindane)	<0.0097		ug/L		0.2		525.2	Total/NA
Heptachlor	<0.0097		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L		50		525.2	Total/NA
Methoxychlor	<0.048		ug/L		40		525.2	Total/NA
Simazine	<0.048		ug/L		4		525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L		0.2		625.1 SIM	Total/NA
Pentachlorophenol	<0.97		ug/L		1		625.1 SIM	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.51		ug/L		3		505	Total/NA
Chlordane (n.o.s.)	<0.10		ug/L		2		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA
Chloride	91		mg/L			250	300.0	Total/NA
Sulfate	13		mg/L			250	300.0	Total/NA
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
Beryllium	<0.30		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	1.8		ug/L		100		200.8	Total/NA
Copper	4.0		ug/L			1000	200.8	Total/NA
Lead	<0.50		ug/L		15.000		200.8	Total/NA
Selenium	<2.0		ug/L		50		200.8	Total/NA
Silver	<0.50		ug/L			100	200.8	Total/NA
Thallium	<0.30		ug/L		2		200.8	Total/NA
Zinc	<20		ug/L			5000	200.8	Total/NA
Mercury	<0.20		ug/L		2		245.1	Total/NA
Total Dissolved Solids	260		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA
pH	7.9	HF	SU			6.5	SM 4500 H+ B	Total/NA

Action Limit Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Client Sample ID: TB: AIEA WELLS P1 (260) (331-003-WL102)

Lab Sample ID: 380-131022-3

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	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
1,2,3-Trichloropropane	<0.020		ug/L	0.6000		0.020	504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2	0.010	504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05	0.010	504.1	Total/NA

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-131022-4

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	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
1,2,3-Trichloropropane	<0.020		ug/L	0.6000		0.020	504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2	0.010	504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05	0.010	504.1	Total/NA

Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		TOL (70-130)	BFB (70-130)	DCA (70-130)				
380-131022-1	AIEA GULCH WELLS PUMP 1 (	95	103	99				
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	97	98	101				
Surrogate Legend								
TOL = Toluene-d8 (Surr)								
BFB = 4-Bromofluorobenzene (Surr)								
DCA = 1,2-Dichloroethane-d4 (Surr)								

Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		TOL (70-130)	BFB (70-130)	DCA (70-130)				
LCS 380-129749/8	Lab Control Sample	104	96	97				
LCSD 380-129749/9	Lab Control Sample Dup	103	100	96				
MB 380-129749/11	Method Blank	100	102	96				
Surrogate Legend								
TOL = Toluene-d8 (Surr)								
BFB = 4-Bromofluorobenzene (Surr)								
DCA = 1,2-Dichloroethane-d4 (Surr)								

Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		TOL (50-150)	BFB (50-150)	DCA (50-150)				
MRL 380-129749/10	Lab Control Sample	104	98	97				
Surrogate Legend								
TOL = Toluene-d8 (Surr)								
BFB = 4-Bromofluorobenzene (Surr)								
DCA = 1,2-Dichloroethane-d4 (Surr)								

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)				
380-131022-1	AIEA GULCH WELLS PUMP 1 (	97	95	104				
380-131022-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	99	96	109				
380-131022-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	98	97	110				
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	99	95	103				
Surrogate Legend								
2NMX = 2-Nitro-m-xylene								
PRY = Perylene-d12								

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Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

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)
LCS 380-129273/23-A	Lab Control Sample	99	92	110
MB 380-129273/21-A	Method Blank	98	88	103
MRL 380-129273/22-A	Lab Control Sample	99	85	102

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	90	70	55	79	34	74
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	87	64	49	68	29	69

Surrogate Legend

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

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
MB 570-524601/1-A	Method Blank	86	54	51	63	31	65

Surrogate Legend

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

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	87	75	48	77	31	78
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	88	67	46	72	28	72

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Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
LCS 570-524601/2-A	Lab Control Sample	84	69	54	64	37	79
LCSD 570-524601/3-A	Lab Control Sample Dup	83	76	59	66	39	82
MB 570-524601/1-A	Method Blank	91	57	44	62	28	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)

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		BFB1 (38-134)					
380-131022-1	AIEA GULCH WELLS PUMP 1 (	100					
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	100					

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		BFB1 (38-134)					
380-130371-C-3 MS	Matrix Spike	101					
380-130371-C-3 MSD	Matrix Spike Duplicate	100					
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	96					
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	98					
LCS 570-525353/4	Lab Control Sample	101					
LCSD 570-525353/5	Lab Control Sample Dup	104					
MB 570-525353/6	Method Blank	104					
MRL 570-525353/3	Lab Control Sample	99					

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	94
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	102

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-130878-E-1-A MS	Matrix Spike	88
380-130879-E-1-A DU	Duplicate	97
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	98
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	100
LCS 380-128894/29-A	Lab Control Sample	100
MBL 380-128894/4-A	Method Blank	99
MRL 380-128894/2-A	Lab Control Sample	102
MRL 380-128894/3-A	Lab Control Sample	99

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	95
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	95

Surrogate Legend

TCX = Tetrachloro-m-xylene

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-130853-B-2-A MS	Matrix Spike	100
380-130853-C-1-A MS	Matrix Spike	100
380-130853-D-1-A MS	Matrix Spike	110
380-130853-D-2-A MS	Matrix Spike	108
LCS 380-129356/29-A	Lab Control Sample	99
LCS 380-129356/30-A	Lab Control Sample	94
LCS 380-129356/32-A	Lab Control Sample	99
LCSD 380-129356/31-A	Lab Control Sample Dup	93

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Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
MB 380-129356/4-A	Method Blank	87
MRL 380-129356/2-A	Lab Control Sample	97
MRL 380-129356/3-A	Lab Control Sample	95

Surrogate Legend

TCX = Tetrachloro-m-xylene

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	79
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	78

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-130371-B-3-A MS	Matrix Spike	112
380-130371-B-3-B MSD	Matrix Spike Duplicate	89
LCS 570-524661/2-A	Lab Control Sample	86
LCSD 570-524661/3-A	Lab Control Sample Dup	88
MB 570-524661/1-A	Method Blank	85
MRL 570-524661/4-A	Lab Control Sample	90

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP1 (54-120)
380-131022-1	AIEA GULCH WELLS PUMP 1 (	104
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	101

Surrogate Legend

HF2PP = Hexafluoro-2-propanol (Surr)

Surrogate Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)
Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	HF2PP1 (54-120)
380-131011-AB-1 MS	Matrix Spike	75
380-131011-AB-1 MSD	Matrix Spike Duplicate	108
LCS 570-524799/12	Lab Control Sample	86
LCSD 570-524799/13	Lab Control Sample Dup	95
MB 570-524799/11	Method Blank	104
MRL 570-524799/14	Lab Control Sample	111
Surrogate Legend		
HF2PP = Hexafluoro-2-propanol (Surr)		

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 380-129749/11

Matrix: Water

Analysis Batch: 129749

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			01/23/25 00:15	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130				01/23/25 00:15	1
4-Bromofluorobenzene (Surr)	102		70 - 130				01/23/25 00:15	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				01/23/25 00:15	1

Lab Sample ID: LCS 380-129749/8

Matrix: Water

Analysis Batch: 129749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tertiary Butyl Alcohol (TBA)	5.00	4.84		ug/L		97	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
Toluene-d8 (Surr)	104		70 - 130				
4-Bromofluorobenzene (Surr)	96		70 - 130				
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				

Lab Sample ID: LCSD 380-129749/9

Matrix: Water

Analysis Batch: 129749

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tertiary Butyl Alcohol (TBA)	5.00	4.35		ug/L		87	70 - 130	11	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
Toluene-d8 (Surr)	103		70 - 130						
4-Bromofluorobenzene (Surr)	100		70 - 130						
1,2-Dichloroethane-d4 (Surr)	96		70 - 130						

Lab Sample ID: MRL 380-129749/10

Matrix: Water

Analysis Batch: 129749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Tertiary Butyl Alcohol (TBA)	2.00	1.86	J	ug/L		93	50 - 150
Surrogate	%Recovery	MRL Qualifier	Limits				
Toluene-d8 (Surr)	104		50 - 150				
4-Bromofluorobenzene (Surr)	98		50 - 150				
1,2-Dichloroethane-d4 (Surr)	97		50 - 150				

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MB 380-129273/21-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129273

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
2,4'-DDE	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
2,4'-DDT	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
4,4'-DDD	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
4,4'-DDE	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
4,4'-DDT	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Acenaphthene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Acenaphthylene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Acetochlor	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Alachlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
alpha-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
alpha-Chlordane	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Anthracene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:26	1
Atrazine	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:26	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:26	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:26	1
beta-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/21/25 06:08	01/21/25 16:26	1
Aldrin	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Bromacil	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Butachlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/21/25 06:08	01/21/25 16:26	1
Chlorobenzilate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Chloroneb	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Chlorpyrifos	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Chrysene	<0.020		0.020	ug/L		01/21/25 06:08	01/21/25 16:26	1
delta-BHC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/21/25 06:08	01/21/25 16:26	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Dieldrin	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Diethylphthalate	<0.50		0.50	ug/L		01/21/25 06:08	01/21/25 16:26	1
Dimethylphthalate	<0.50		0.50	ug/L		01/21/25 06:08	01/21/25 16:26	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		01/21/25 06:08	01/21/25 16:26	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Endosulfan sulfate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Endrin	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Endrin aldehyde	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
EPTC	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Fluoranthene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MB 380-129273/21-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129273

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
gamma-BHC (Lindane)	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
gamma-Chlordane	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Heptachlor	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Isophorone	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Malathion	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Methoxychlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Metolachlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Molinate	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Naphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Parathion	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Phenanthrene	<0.040		0.040	ug/L		01/21/25 06:08	01/21/25 16:26	1
Propachlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Pyrene	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Simazine	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Terbacil	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Terbutylazine	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Thiobencarb	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/21/25 06:08	01/21/25 16:26	1
trans-Nonachlor	<0.050		0.050	ug/L		01/21/25 06:08	01/21/25 16:26	1
Trifluralin	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
1-Methylnaphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1
2-Methylnaphthalene	<0.099		0.099	ug/L		01/21/25 06:08	01/21/25 16:26	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.511	T J	ug/L		11.21	N/A	01/21/25 06:08	01/21/25 16:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	01/21/25 06:08	01/21/25 16:26	1
Perylene-d12	88		70 - 130	01/21/25 06:08	01/21/25 16:26	1
Triphenylphosphate	103		70 - 130	01/21/25 06:08	01/21/25 16:26	1

Lab Sample ID: LCS 380-129273/23-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.99	2.11		ug/L		106	70 - 130
2,4'-DDE	1.99	2.02		ug/L		102	70 - 130
2,4'-DDT	1.99	2.02		ug/L		102	70 - 130
2,4-Dinitrotoluene	1.99	2.09		ug/L		105	70 - 130
2,6-Dinitrotoluene	1.99	1.97		ug/L		99	70 - 130
4,4'-DDD	1.99	2.12		ug/L		107	70 - 130

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-129273/23-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDE	1.99	1.98		ug/L		100	70 - 130
4,4'-DDT	1.99	2.07		ug/L		104	70 - 130
Acenaphthene	1.99	1.86		ug/L		94	70 - 130
Acenaphthylene	1.99	1.83		ug/L		92	70 - 130
Acetochlor	1.99	2.07		ug/L		104	70 - 130
Alachlor	1.99	1.99		ug/L		100	70 - 130
alpha-BHC	1.99	1.96		ug/L		99	70 - 130
alpha-Chlordane	1.99	2.06		ug/L		104	70 - 130
Anthracene	1.99	1.73		ug/L		87	70 - 130
Atrazine	1.99	2.05		ug/L		103	70 - 130
Benz(a)anthracene	1.99	1.97		ug/L		99	70 - 130
Benzo[a]pyrene	1.99	1.79		ug/L		90	70 - 130
Benzo[b]fluoranthene	1.99	1.88		ug/L		95	70 - 130
Benzo[g,h,i]perylene	1.99	1.88		ug/L		95	70 - 130
Benzo[k]fluoranthene	1.99	1.94		ug/L		98	70 - 130
beta-BHC	1.99	2.14		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.89		ug/L		95	70 - 130
Aldrin	1.99	1.72		ug/L		87	70 - 130
Bromacil	1.99	2.10		ug/L		106	70 - 130
Butachlor	1.99	2.10		ug/L		106	70 - 130
Butylbenzylphthalate	1.99	2.11		ug/L		106	70 - 130
Chlorobenzilate	1.99	1.87		ug/L		94	70 - 130
Chloroneb	1.99	2.07		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.03		ug/L		102	70 - 130
Chlorpyrifos	1.99	2.04		ug/L		103	70 - 130
Chrysene	1.99	1.94		ug/L		97	70 - 130
delta-BHC	1.99	2.00		ug/L		101	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.01		ug/L		101	70 - 130
Dibenz(a,h)anthracene	1.99	1.88		ug/L		95	70 - 130
Diclorvos (DDVP)	1.99	1.80		ug/L		91	70 - 130
Dieldrin	1.99	1.90		ug/L		95	70 - 130
Diethylphthalate	1.99	2.03		ug/L		102	70 - 130
Dimethylphthalate	1.99	1.96		ug/L		99	70 - 130
Di-n-butyl phthalate	3.97	4.07		ug/L		103	70 - 130
Di-n-octyl phthalate	1.99	1.71		ug/L		86	70 - 130
Endosulfan I (Alpha)	1.99	1.95		ug/L		98	70 - 130
Endosulfan II (Beta)	1.99	2.11		ug/L		106	70 - 130
Endosulfan sulfate	1.99	2.01		ug/L		101	70 - 130
Endrin	1.99	2.32		ug/L		117	70 - 130
Endrin aldehyde	1.99	1.92		ug/L		97	60 - 130
EPTC	1.99	1.84		ug/L		93	70 - 130
Fluoranthene	1.99	2.06		ug/L		104	70 - 130
Fluorene	1.99	1.95		ug/L		98	70 - 130
gamma-BHC (Lindane)	1.99	2.04		ug/L		103	70 - 130
gamma-Chlordane	1.99	2.00		ug/L		101	70 - 130
Heptachlor	1.99	2.00		ug/L		101	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.01		ug/L		101	70 - 130
Hexachlorobenzene	1.99	1.89		ug/L		95	70 - 130
Hexachlorocyclopentadiene	1.99	1.97		ug/L		99	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-129273/23-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	1.99	1.76		ug/L		89	70 - 130
Isophorone	1.99	1.61		ug/L		81	70 - 130
Malathion	1.99	2.07		ug/L		104	70 - 130
Methoxychlor	1.99	1.94		ug/L		98	70 - 130
Metolachlor	1.99	2.02		ug/L		102	70 - 130
Molinate	1.99	1.95		ug/L		98	70 - 130
Naphthalene	1.99	1.81		ug/L		91	70 - 130
Parathion	1.99	2.13		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	1.99	2.09		ug/L		105	70 - 130
Phenanthrene	1.99	1.80		ug/L		91	70 - 130
Propachlor	1.99	2.08		ug/L		105	70 - 130
Pyrene	1.99	2.04		ug/L		103	70 - 130
Simazine	1.99	1.98		ug/L		100	70 - 130
Terbacil	1.99	2.09		ug/L		105	70 - 130
Terbutylazine	1.99	2.30		ug/L		116	70 - 130
Thiobencarb	1.99	2.08		ug/L		105	70 - 130
trans-Nonachlor	1.99	1.95		ug/L		98	70 - 130
Trifluralin	1.99	1.87		ug/L		94	70 - 130
1-Methylnaphthalene	1.99	1.81		ug/L		91	70 - 130
2-Methylnaphthalene	1.99	1.80		ug/L		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: MRL 380-129273/22-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0993	0.0932	J	ug/L		94	50 - 150
2,4'-DDE	0.0993	0.0993		ug/L		100	50 - 150
2,4'-DDT	0.0993	0.112		ug/L		113	50 - 150
2,4-Dinitrotoluene	0.0993	0.119		ug/L		120	50 - 150
2,6-Dinitrotoluene	0.0993	0.131		ug/L		132	50 - 150
4,4'-DDD	0.0993	0.107		ug/L		107	50 - 150
4,4'-DDE	0.0993	0.0948	J	ug/L		96	50 - 150
4,4'-DDT	0.0993	0.114		ug/L		115	50 - 150
Acenaphthene	0.0993	0.0921	J	ug/L		93	50 - 150
Acenaphthylene	0.0993	0.0888	J	ug/L		89	50 - 150
Acetochlor	0.0993	0.120		ug/L		120	50 - 150
Alachlor	0.0496	0.0657		ug/L		132	50 - 150
alpha-BHC	0.0993	0.106		ug/L		107	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		91	50 - 150
Anthracene	0.0199	0.0201		ug/L		101	50 - 150
Atrazine	0.0496	0.0646		ug/L		130	50 - 150
Benz(a)anthracene	0.0496	0.0521		ug/L		105	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-129273/22-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	0.0199	0.0154	J	ug/L		77	50 - 150
Benzo[b]fluoranthene	0.0199	0.0170	J	ug/L		86	50 - 150
Benzo[g,h,i]perylene	0.0496	0.0415	J	ug/L		84	50 - 150
Benzo[k]fluoranthene	0.0199	0.0179	J	ug/L		90	50 - 150
beta-BHC	0.0993	0.120		ug/L		121	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.488	J	ug/L		82	50 - 150
Aldrin	0.00993	0.0104		ug/L		105	50 - 150
Bromacil	0.0993	0.107		ug/L		108	50 - 150
Butachlor	0.0496	0.0687		ug/L		138	50 - 150
Butylbenzylphthalate	0.496	0.530		ug/L		107	50 - 150
Chlorobenzilate	0.0993	0.105		ug/L		106	50 - 150
Chloroneb	0.0993	0.0791	J	ug/L		80	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0993	0.0921	J	ug/L		93	50 - 150
Chlorpyrifos	0.0496	0.0482	J	ug/L		97	50 - 150
Chrysene	0.0199	0.0208		ug/L		105	50 - 150
delta-BHC	0.0993	0.108		ug/L		109	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.559	J	ug/L		94	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0402	J	ug/L		81	50 - 150
Diclorvos (DDVP)	0.0496	0.0554		ug/L		112	50 - 150
Dieldrin	0.00993	0.0124		ug/L		124	50 - 150
Diethylphthalate	0.496	0.525		ug/L		106	50 - 150
Dimethylphthalate	0.496	0.521		ug/L		105	50 - 150
Di-n-butyl phthalate	0.496	0.513	J	ug/L		103	49 - 243
Di-n-octyl phthalate	0.0993	0.0787	J	ug/L		79	50 - 150
Endosulfan I (Alpha)	0.0993	0.0858	J	ug/L		86	50 - 150
Endosulfan II (Beta)	0.0993	0.121		ug/L		122	50 - 150
Endosulfan sulfate	0.0993	0.102		ug/L		103	50 - 150
Endrin	0.00993	0.0135		ug/L		136	50 - 150
Endrin aldehyde	0.0993	0.0975	J	ug/L		98	50 - 150
EPTC	0.0993	0.0907	J	ug/L		91	50 - 150
Fluoranthene	0.0993	0.0991		ug/L		100	50 - 150
Fluorene	0.0496	0.0507		ug/L		102	50 - 150
gamma-BHC (Lindane)	0.00993	0.00979	J	ug/L		99	50 - 150
gamma-Chlordane	0.0248	0.0229	J	ug/L		92	50 - 150
Heptachlor	0.00993	0.00897	J	ug/L		90	50 - 150
Heptachlor epoxide (isomer B)	0.00993	0.0109		ug/L		110	50 - 150
Hexachlorobenzene	0.0496	0.0471	J	ug/L		95	50 - 150
Hexachlorocyclopentadiene	0.0496	0.0463	J	ug/L		93	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0408	J	ug/L		82	50 - 150
Isophorone	0.0993	0.102		ug/L		103	50 - 150
Malathion	0.0993	0.116		ug/L		117	50 - 150
Methoxychlor	0.0496	0.0666		ug/L		134	50 - 150
Metolachlor	0.0496	0.0676		ug/L		136	50 - 150
Molinate	0.0993	0.102		ug/L		103	50 - 150
Naphthalene	0.0993	0.0967	J	ug/L		97	50 - 150
Parathion	0.0993	0.0997		ug/L		100	50 - 150
Pendimethalin (Penoxaline)	0.0993	0.104		ug/L		105	50 - 150
Phenanthrene	0.0397	0.0420		ug/L		106	50 - 150
Propachlor	0.0496	0.0532		ug/L		107	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-129273/22-A

Matrix: Water

Analysis Batch: 129391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Pyrene	0.0496	0.0480	J	ug/L		97	50 - 150
Simazine	0.0496	0.0518		ug/L		104	50 - 150
Terbacil	0.0993	0.111		ug/L		112	50 - 150
Terbuthylazine	0.0993	0.105		ug/L		106	50 - 150
Thiobencarb	0.0993	0.0996		ug/L		100	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		96	50 - 150
Trifluralin	0.0993	0.105		ug/L		106	50 - 150
1-Methylnaphthalene	0.0993	0.106		ug/L		107	50 - 150
2-Methylnaphthalene	0.0993	0.101		ug/L		102	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	85		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: 380-131022-1 MS

Matrix: Drinking Water

Analysis Batch: 129391

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.099		1.94	2.16		ug/L		111	70 - 130
2,4'-DDE	<0.099		1.94	2.05		ug/L		106	70 - 130
2,4'-DDT	<0.099		1.94	2.09		ug/L		108	70 - 130
2,4-Dinitrotoluene	<0.099		1.94	2.31		ug/L		119	70 - 130
2,6-Dinitrotoluene	<0.099		1.94	2.16		ug/L		111	70 - 130
4,4'-DDD	<0.099		1.94	2.17		ug/L		112	70 - 130
4,4'-DDE	<0.099		1.94	2.01		ug/L		104	70 - 130
4,4'-DDT	<0.099		1.94	2.16		ug/L		111	70 - 130
Acenaphthene	<0.099		1.94	1.92		ug/L		99	70 - 130
Acenaphthylene	<0.099		1.94	1.90		ug/L		98	70 - 130
Acetochlor	<0.099		1.94	2.11		ug/L		108	70 - 130
Alachlor	<0.049		1.94	2.06		ug/L		106	70 - 130
alpha-BHC	<0.099		1.94	2.03		ug/L		105	70 - 130
alpha-Chlordane	<0.049		1.94	2.14		ug/L		110	70 - 130
Anthracene	<0.020		1.94	1.43		ug/L		74	70 - 130
Atrazine	<0.049		1.94	2.11		ug/L		109	70 - 130
Benz(a)anthracene	<0.049		1.94	1.96		ug/L		101	70 - 130
Benzo[a]pyrene	<0.020		1.94	1.73		ug/L		89	70 - 130
Benzo[b]fluoranthene	<0.020		1.94	1.97		ug/L		101	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	1.93		ug/L		100	70 - 130
Benzo[k]fluoranthene	<0.020		1.94	2.02		ug/L		104	70 - 130
beta-BHC	<0.099		1.94	2.17		ug/L		112	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.94	1.79		ug/L		92	70 - 130
Aldrin	<0.0099		1.94	1.74		ug/L		90	70 - 130
Bromacil	<0.099		1.94	2.28		ug/L		118	70 - 130
Butachlor	<0.049		1.94	2.13		ug/L		110	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.12		ug/L		109	70 - 130
Chlorobenzilate	<0.099		1.94	1.90		ug/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: 380-131022-1 MS

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 129391

Prep Batch: 129273

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroneb	<0.099		1.94	2.10		ug/L		108	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.099		1.94	2.14		ug/L		110	70 - 130
Chlorpyrifos	<0.049		1.94	2.12		ug/L		109	70 - 130
Chrysene	<0.020		1.94	1.98		ug/L		102	70 - 130
delta-BHC	<0.099		1.94	2.04		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.94	1.95		ug/L		101	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	1.91		ug/L		99	70 - 130
Diclorvos (DDVP)	<0.049		1.94	1.91		ug/L		99	70 - 130
Dieldrin	<0.0099		1.94	1.96		ug/L		101	70 - 130
Diethylphthalate	<0.49		1.94	2.05		ug/L		106	70 - 130
Dimethylphthalate	<0.49		1.94	1.99		ug/L		103	70 - 130
Di-n-butyl phthalate	<0.99		3.88	4.16		ug/L		107	70 - 130
Di-n-octyl phthalate	<0.099		1.94	1.60		ug/L		82	70 - 130
Endosulfan I (Alpha)	<0.099		1.94	2.01		ug/L		104	70 - 130
Endosulfan II (Beta)	<0.099		1.94	2.13		ug/L		110	70 - 130
Endosulfan sulfate	<0.099		1.94	2.11		ug/L		109	70 - 130
Endrin	<0.0099		1.94	2.38		ug/L		123	70 - 130
Endrin aldehyde	<0.099		1.94	1.71		ug/L		88	60 - 130
EPTC	<0.099		1.94	1.89		ug/L		97	70 - 130
Fluoranthene	<0.099		1.94	2.12		ug/L		109	70 - 130
Fluorene	<0.049		1.94	1.97		ug/L		102	70 - 130
gamma-BHC (Lindane)	<0.0099		1.94	2.06		ug/L		106	70 - 130
gamma-Chlordane	<0.049		1.94	2.07		ug/L		106	70 - 130
Heptachlor	<0.0099		1.94	2.05		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	<0.0099		1.94	2.07		ug/L		107	70 - 130
Hexachlorobenzene	<0.049		1.94	1.93		ug/L		99	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	2.05		ug/L		106	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	1.94		ug/L		100	70 - 130
Isophorone	<0.099		1.94	1.67		ug/L		86	70 - 130
Malathion	<0.099		1.94	2.12		ug/L		109	70 - 130
Methoxychlor	<0.049		1.94	2.06		ug/L		106	70 - 130
Metolachlor	<0.049		1.94	2.09		ug/L		108	70 - 130
Molinate	<0.099		1.94	2.00		ug/L		103	70 - 130
Naphthalene	<0.099		1.94	1.87		ug/L		96	70 - 130
Parathion	<0.099		1.94	2.25		ug/L		116	70 - 130
Pendimethalin (Penoxaline)	<0.099		1.94	2.26		ug/L		117	70 - 130
Phenanthrene	<0.040		1.94	1.83		ug/L		94	70 - 130
Propachlor	<0.049		1.94	2.11		ug/L		109	70 - 130
Pyrene	<0.049		1.94	2.08		ug/L		107	70 - 130
Simazine	<0.049		1.94	2.04		ug/L		105	70 - 130
Terbacil	<0.099		1.94	2.26		ug/L		116	70 - 130
Terbutylazine	<0.099		1.94	2.30		ug/L		118	70 - 130
Thiobencarb	<0.099		1.94	2.11		ug/L		109	70 - 130
trans-Nonachlor	<0.049		1.94	2.04		ug/L		105	70 - 130
Trifluralin	<0.099		1.94	1.99		ug/L		103	70 - 130
1-Methylnaphthalene	<0.099		1.94	1.84		ug/L		95	70 - 130
2-Methylnaphthalene	<0.099		1.94	1.83		ug/L		94	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: 380-131022-1 MS

Matrix: Drinking Water

Analysis Batch: 129391

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Prep Type: Total/NA

Prep Batch: 129273

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: 380-131022-1 MSD

Matrix: Drinking Water

Analysis Batch: 129391

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Prep Type: Total/NA

Prep Batch: 129273

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	<0.099		1.96	2.19		ug/L		112	70 - 130	1	20
2,4'-DDE	<0.099		1.96	2.05		ug/L		105	70 - 130	0	20
2,4'-DDT	<0.099		1.96	2.13		ug/L		108	70 - 130	2	20
2,4-Dinitrotoluene	<0.099		1.96	2.32		ug/L		118	70 - 130	1	20
2,6-Dinitrotoluene	<0.099		1.96	2.15		ug/L		109	70 - 130	0	20
4,4'-DDD	<0.099		1.96	2.19		ug/L		112	70 - 130	1	20
4,4'-DDE	<0.099		1.96	2.03		ug/L		104	70 - 130	1	20
4,4'-DDT	<0.099		1.96	2.19		ug/L		112	70 - 130	1	20
Acenaphthene	<0.099		1.96	1.95		ug/L		99	70 - 130	1	20
Acenaphthylene	<0.099		1.96	1.91		ug/L		97	70 - 130	0	20
Acetochlor	<0.099		1.96	2.14		ug/L		109	70 - 130	2	20
Alachlor	<0.049		1.96	2.07		ug/L		105	70 - 130	1	20
alpha-BHC	<0.099		1.96	2.05		ug/L		104	70 - 130	1	20
alpha-Chlordane	<0.049		1.96	2.14		ug/L		109	70 - 130	0	20
Anthracene	<0.020		1.96	1.45		ug/L		74	70 - 130	1	20
Atrazine	<0.049		1.96	2.16		ug/L		110	70 - 130	2	20
Benz(a)anthracene	<0.049		1.96	2.00		ug/L		102	70 - 130	2	20
Benzo[a]pyrene	<0.020		1.96	1.77		ug/L		90	70 - 130	2	20
Benzo[b]fluoranthene	<0.020		1.96	1.98		ug/L		101	70 - 130	1	20
Benzo[g,h,i]perylene	<0.049		1.96	1.96		ug/L		100	70 - 130	1	20
Benzo[k]fluoranthene	<0.020		1.96	2.06		ug/L		105	70 - 130	2	20
beta-BHC	<0.099		1.96	2.23		ug/L		113	70 - 130	3	20
Bis(2-ethylhexyl) phthalate	<0.59		1.96	1.68		ug/L		86	70 - 130	6	20
Aldrin	<0.0099		1.96	1.74		ug/L		88	70 - 130	0	20
Bromacil	<0.099		1.96	2.29		ug/L		117	70 - 130	0	20
Butachlor	<0.049		1.96	2.18		ug/L		111	70 - 130	2	20
Butylbenzylphthalate	<0.49		1.96	2.17		ug/L		111	70 - 130	2	20
Chlorobenzilate	<0.099		1.96	1.80		ug/L		92	70 - 130	5	20
Chloroneb	<0.099		1.96	2.17		ug/L		111	70 - 130	3	20
Chlorothalonil (Draconil, Bravo)	<0.099		1.96	2.11		ug/L		108	70 - 130	1	20
Chlorpyrifos	<0.049		1.96	2.12		ug/L		108	70 - 130	0	20
Chrysene	<0.020		1.96	1.99		ug/L		102	70 - 130	1	20
delta-BHC	<0.099		1.96	2.08		ug/L		106	70 - 130	2	20
Di(2-ethylhexyl)adipate	<0.59		1.96	1.86		ug/L		95	70 - 130	5	20
Dibenz(a,h)anthracene	<0.049		1.96	1.92		ug/L		98	70 - 130	0	20
Diclorvos (DDVP)	<0.049		1.96	1.90		ug/L		97	70 - 130	1	20
Dieldrin	<0.0099		1.96	1.97		ug/L		100	70 - 130	1	20
Diethylphthalate	<0.49		1.96	2.08		ug/L		106	70 - 130	1	20
Dimethylphthalate	<0.49		1.96	2.01		ug/L		102	70 - 130	1	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: 380-131022-1 MSD

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 129391

Prep Batch: 129273

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-butyl phthalate	<0.99		3.93	4.19		ug/L		107	70 - 130	1	20
Di-n-octyl phthalate	<0.099		1.96	1.47		ug/L		75	70 - 130	8	20
Endosulfan I (Alpha)	<0.099		1.96	2.04		ug/L		104	70 - 130	2	20
Endosulfan II (Beta)	<0.099		1.96	2.09		ug/L		107	70 - 130	2	20
Endosulfan sulfate	<0.099		1.96	2.16		ug/L		110	70 - 130	2	20
Endrin	<0.0099		1.96	2.45		ug/L		125	70 - 130	3	20
Endrin aldehyde	<0.099		1.96	1.76		ug/L		89	60 - 130	2	20
EPTC	<0.099		1.96	1.90		ug/L		97	70 - 130	0	20
Fluoranthene	<0.099		1.96	2.13		ug/L		109	70 - 130	1	20
Fluorene	<0.049		1.96	2.01		ug/L		102	70 - 130	2	20
gamma-BHC (Lindane)	<0.0099		1.96	2.13		ug/L		108	70 - 130	3	20
gamma-Chlordane	<0.049		1.96	2.06		ug/L		105	70 - 130	0	20
Heptachlor	<0.0099		1.96	2.03		ug/L		103	70 - 130	1	20
Heptachlor epoxide (isomer B)	<0.0099		1.96	2.09		ug/L		107	70 - 130	1	20
Hexachlorobenzene	<0.049		1.96	1.98		ug/L		101	70 - 130	3	20
Hexachlorocyclopentadiene	<0.049		1.96	2.07		ug/L		105	70 - 130	1	20
Indeno[1,2,3-cd]pyrene	<0.049		1.96	1.96		ug/L		100	70 - 130	1	20
Isophorone	<0.099		1.96	1.76		ug/L		90	70 - 130	5	20
Malathion	<0.099		1.96	2.16		ug/L		110	70 - 130	2	20
Methoxychlor	<0.049		1.96	2.06		ug/L		105	70 - 130	0	20
Metolachlor	<0.049		1.96	2.11		ug/L		107	70 - 130	1	20
Molinate	<0.099		1.96	2.01		ug/L		102	70 - 130	0	20
Naphthalene	<0.099		1.96	1.87		ug/L		95	70 - 130	0	20
Parathion	<0.099		1.96	2.27		ug/L		116	70 - 130	1	20
Pendimethalin (Penoxaline)	<0.099		1.96	2.31		ug/L		118	70 - 130	2	20
Phenanthrene	<0.040		1.96	1.84		ug/L		94	70 - 130	1	20
Propachlor	<0.049		1.96	2.14		ug/L		109	70 - 130	1	20
Pyrene	<0.049		1.96	2.13		ug/L		108	70 - 130	2	20
Simazine	<0.049		1.96	2.09		ug/L		107	70 - 130	2	20
Terbacil	<0.099		1.96	2.22		ug/L		113	70 - 130	2	20
Terbutylazine	<0.099		1.96	2.37		ug/L		121	70 - 130	3	20
Thiobencarb	<0.099		1.96	2.14		ug/L		109	70 - 130	1	20
trans-Nonachlor	<0.049		1.96	2.04		ug/L		104	70 - 130	0	20
Trifluralin	<0.099		1.96	2.05		ug/L		104	70 - 130	3	20
1-Methylnaphthalene	<0.099		1.96	1.86		ug/L		95	70 - 130	1	20
2-Methylnaphthalene	<0.099		1.96	1.85		ug/L		94	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	110		70 - 130

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MB 570-524601/1-A
Matrix: Water
Analysis Batch: 526704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524601

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>01/20/25 13:18</i>	<i>01/27/25 14:51</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
2,4,6-Tribromophenol (Surr)	86		33 - 139				01/20/25 13:18	01/27/25 14:51	1
2-Fluorobiphenyl (Surr)	54		33 - 126				01/20/25 13:18	01/27/25 14:51	1
2-Fluorophenol (Surr)	51		12 - 120				01/20/25 13:18	01/27/25 14:51	1
Nitrobenzene-d5 (Surr)	63		36 - 120				01/20/25 13:18	01/27/25 14:51	1
Phenol-d6 (Surr)	31		10 - 120				01/20/25 13:18	01/27/25 14:51	1
p-Terphenyl-d14 (Surr)	65		47 - 131				01/20/25 13:18	01/27/25 14:51	1

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

Lab Sample ID: MB 570-524601/1-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524601

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1-Methylnaphthalene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
2,4,5-Trichlorophenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2,4,6-Trichlorophenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2,4-Dichlorophenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2,4-Dinitrophenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2,6-Dichlorophenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Chloronaphthalene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Chlorophenol	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Methylnaphthalene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Methylphenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Nitroaniline	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
2-Nitrophenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
3/4-Methylphenol	<2.0		2.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
3-Nitroaniline	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
4,6-Dinitro-2-methylphenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Bromophenyl phenyl ether	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Chloro-3-methylphenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Chloroaniline	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Chlorophenyl phenyl ether	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Nitroaniline	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
4-Nitrophenol	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
Acenaphthene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Acenaphthylene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Aniline	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Anthracene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzidine	<5.0		5.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzo[a]anthracene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzo[a]pyrene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MB 570-524601/1-A

Matrix: Water

Analysis Batch: 527743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 524601

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	<10		10	ug/L		01/20/25 13:18	01/29/25 14:16	1
Benzyl alcohol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
Bis(2-chloroethoxy)methane	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Bis(2-chloroethyl)ether	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
bis (2-Chloroisopropyl) ether	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Chrysene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Dibenzofuran	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Fluoranthene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Fluorene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Hexachloroethane	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Naphthalene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Nitrobenzene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
N-Nitrosodi-n-propylamine	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
N-Nitrosodiphenylamine	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Pentachlorophenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
Phenanthrene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1
Phenol	<1.0		1.0	ug/L		01/20/25 13:18	01/29/25 14:16	1
Pyrene	<0.20		0.20	ug/L		01/20/25 13:18	01/29/25 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		28 - 127	01/20/25 13:18	01/29/25 14:16	1
2-Fluorobiphenyl (Surr)	57		31 - 120	01/20/25 13:18	01/29/25 14:16	1
2-Fluorophenol (Surr)	44		17 - 120	01/20/25 13:18	01/29/25 14:16	1
Nitrobenzene-d5 (Surr)	62		27 - 120	01/20/25 13:18	01/29/25 14:16	1
Phenol-d6 (Surr)	28		10 - 120	01/20/25 13:18	01/29/25 14:16	1
p-Terphenyl-d14 (Surr)	68		45 - 120	01/20/25 13:18	01/29/25 14:16	1

Lab Sample ID: LCS 570-524601/2-A

Matrix: Water

Analysis Batch: 527743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.5		ug/L		68	47 - 120
2,4,5-Trichlorophenol	20.0	17.1		ug/L		85	57 - 120
2,4,6-Trichlorophenol	20.0	17.3		ug/L		87	52 - 129
2,4-Dichlorophenol	20.0	15.6		ug/L		78	53 - 122
2,4-Dinitrophenol	20.0	14.7		ug/L		74	1 - 173
2,6-Dichlorophenol	20.0	15.9		ug/L		79	50 - 120
2-Chloronaphthalene	20.0	15.9		ug/L		79	65 - 120
2-Chlorophenol	20.0	16.9		ug/L		85	36 - 120
2-Methylnaphthalene	20.0	14.9		ug/L		74	43 - 120
2-Methylphenol	20.0	15.8		ug/L		79	46 - 120
2-Nitroaniline	20.0	16.6		ug/L		83	51 - 125
2-Nitrophenol	20.0	14.1		ug/L		71	45 - 167
3/4-Methylphenol	40.0	28.9		ug/L		72	29 - 120
3-Nitroaniline	20.0	16.6		ug/L		83	62 - 129

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCS 570-524601/2-A

Matrix: Water

Analysis Batch: 527743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,6-Dinitro-2-methylphenol	20.0	17.6		ug/L		88	53 - 130
4-Bromophenyl phenyl ether	20.0	16.0		ug/L		80	65 - 120
4-Chloro-3-methylphenol	20.0	15.8		ug/L		79	41 - 128
4-Chloroaniline	20.0	13.2		ug/L		66	51 - 120
4-Chlorophenyl phenyl ether	20.0	17.1		ug/L		86	38 - 145
4-Nitroaniline	20.0	17.4		ug/L		87	64 - 129
4-Nitrophenol	20.0	8.25		ug/L		41	13 - 129
Acenaphthene	20.0	15.7		ug/L		78	60 - 132
Acenaphthylene	20.0	15.5		ug/L		78	54 - 126
Aniline	20.0	6.71	*-	ug/L		34	52 - 121
Anthracene	20.0	18.1		ug/L		91	43 - 120
Benzidine	20.0	<0.94	*-	ug/L		2	20 - 164
Benzo[a]anthracene	20.0	17.4		ug/L		87	42 - 133
Benzo[a]pyrene	20.0	18.3		ug/L		92	32 - 148
Benzo[b]fluoranthene	20.0	18.0		ug/L		90	42 - 140
Benzo[g,h,i]perylene	20.0	16.9		ug/L		84	1 - 195
Benzo[k]fluoranthene	20.0	17.8		ug/L		89	25 - 146
Benzoic acid	20.0	4.39	J	ug/L		22	20 - 120
Benzyl alcohol	20.0	14.3		ug/L		71	44 - 122
Bis(2-chloroethoxy)methane	20.0	15.3		ug/L		76	49 - 165
Bis(2-chloroethyl)ether	20.0	16.6		ug/L		83	43 - 126
bis (2-Chloroisopropyl) ether	20.0	15.4		ug/L		77	63 - 139
Chrysene	20.0	17.0		ug/L		85	44 - 140
Dibenz(a,h)anthracene	20.0	17.4		ug/L		87	1 - 200
Dibenzofuran	20.0	16.9		ug/L		84	48 - 120
Fluoranthene	20.0	19.2		ug/L		96	43 - 121
Fluorene	20.0	17.2		ug/L		86	70 - 120
Hexachloroethane	20.0	12.2		ug/L		61	55 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.8		ug/L		89	1 - 151
Naphthalene	20.0	13.4		ug/L		67	36 - 120
Nitrobenzene	20.0	14.6		ug/L		73	54 - 158
N-Nitrosodi-n-propylamine	20.0	15.8		ug/L		79	14 - 198
N-Nitrosodiphenylamine	20.0	19.9		ug/L		99	65 - 133
Pentachlorophenol	20.0	17.2		ug/L		86	38 - 152
Phenanthrene	20.0	18.0		ug/L		90	65 - 120
Phenol	20.0	8.48		ug/L		42	17 - 120
Pyrene	20.0	17.8		ug/L		89	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	84		28 - 127
2-Fluorobiphenyl (Surr)	69		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	64		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	79		45 - 120

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCSD 570-524601/3-A

Matrix: Water

Analysis Batch: 527743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 524601

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.5		ug/L		73	47 - 120	7	20
2,4,5-Trichlorophenol	20.0	19.0		ug/L		95	57 - 120	11	20
2,4,6-Trichlorophenol	20.0	18.3		ug/L		91	52 - 129	5	35
2,4-Dichlorophenol	20.0	16.2		ug/L		81	53 - 122	4	30
2,4-Dinitrophenol	20.0	19.2		ug/L		96	1 - 173	26	79
2,6-Dichlorophenol	20.0	15.8		ug/L		79	50 - 120	1	20
2-Chloronaphthalene	20.0	17.6		ug/L		88	65 - 120	10	15
2-Chlorophenol	20.0	18.8		ug/L		94	36 - 120	10	37
2-Methylnaphthalene	20.0	16.5		ug/L		82	43 - 120	10	20
2-Methylphenol	20.0	18.2		ug/L		91	46 - 120	14	20
2-Nitroaniline	20.0	17.2		ug/L		86	51 - 125	3	20
2-Nitrophenol	20.0	15.1		ug/L		75	45 - 167	7	33
3/4-Methylphenol	40.0	31.1		ug/L		78	29 - 120	7	20
3-Nitroaniline	20.0	17.6		ug/L		88	62 - 129	6	20
4,6-Dinitro-2-methylphenol	20.0	17.9		ug/L		89	53 - 130	2	122
4-Bromophenyl phenyl ether	20.0	16.4		ug/L		82	65 - 120	3	26
4-Chloro-3-methylphenol	20.0	16.2		ug/L		81	41 - 128	3	44
4-Chloroaniline	20.0	14.5		ug/L		73	51 - 120	10	20
4-Chlorophenyl phenyl ether	20.0	18.7		ug/L		93	38 - 145	9	36
4-Nitroaniline	20.0	17.1		ug/L		86	64 - 129	1	20
4-Nitrophenol	20.0	8.62		ug/L		43	13 - 129	4	79
Acenaphthene	20.0	17.0		ug/L		85	60 - 132	8	29
Acenaphthylene	20.0	16.9		ug/L		85	54 - 126	9	45
Aniline	20.0	13.3	*1	ug/L		66	52 - 121	66	21
Anthracene	20.0	18.1		ug/L		91	43 - 120	0	40
Benzidine	20.0	<0.94	*- *1	ug/L		3	20 - 164	52	30
Benzo[a]anthracene	20.0	18.2		ug/L		91	42 - 133	4	32
Benzo[a]pyrene	20.0	19.2		ug/L		96	32 - 148	5	43
Benzo[b]fluoranthene	20.0	18.6		ug/L		93	42 - 140	4	43
Benzo[g,h,i]perylene	20.0	17.6		ug/L		88	1 - 195	4	61
Benzo[k]fluoranthene	20.0	18.4		ug/L		92	25 - 146	4	38
Benzoic acid	20.0	8.63	J *1	ug/L		43	20 - 120	65	30
Benzyl alcohol	20.0	15.8		ug/L		79	44 - 122	10	20
Bis(2-chloroethoxy)methane	20.0	16.0		ug/L		80	49 - 165	5	32
Bis(2-chloroethyl)ether	20.0	18.8		ug/L		94	43 - 126	12	65
bis (2-Chloroisopropyl) ether	20.0	17.6		ug/L		88	63 - 139	14	46
Chrysene	20.0	17.9		ug/L		89	44 - 140	5	53
Dibenz(a,h)anthracene	20.0	17.4		ug/L		87	1 - 200	0	75
Dibenzofuran	20.0	18.1		ug/L		90	48 - 120	7	20
Fluoranthene	20.0	19.6		ug/L		98	43 - 121	2	40
Fluorene	20.0	18.5		ug/L		93	70 - 120	8	23
Hexachloroethane	20.0	14.8		ug/L		74	55 - 120	20	32
Indeno[1,2,3-cd]pyrene	20.0	18.3		ug/L		91	1 - 151	3	60
Naphthalene	20.0	14.7		ug/L		73	36 - 120	9	39
Nitrobenzene	20.0	15.1		ug/L		76	54 - 158	3	37
N-Nitrosodi-n-propylamine	20.0	16.7		ug/L		84	14 - 198	6	52
N-Nitrosodiphenylamine	20.0	20.0		ug/L		100	65 - 133	0	20
Pentachlorophenol	20.0	17.1		ug/L		85	38 - 152	1	52

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCSD 570-524601/3-A

Matrix: Water

Analysis Batch: 527743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 524601

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	18.2		ug/L		91	65 - 120	1	24
Phenol	20.0	9.36		ug/L		47	17 - 120	10	39
Pyrene	20.0	18.8		ug/L		94	70 - 120	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	83		28 - 127
2-Fluorobiphenyl (Surr)	76		31 - 120
2-Fluorophenol (Surr)	59		17 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

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

Lab Sample ID: MB 570-525353/6

Matrix: Water

Analysis Batch: 525353

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/22/25 13:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		38 - 134		01/22/25 13:53	1

Lab Sample ID: LCS 570-525353/4

Matrix: Water

Analysis Batch: 525353

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	410		ug/L		103	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		38 - 134

Lab Sample ID: LCSD 570-525353/5

Matrix: Water

Analysis Batch: 525353

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	411		ug/L		103	78 - 120	0	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		38 - 134

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: MRL 570-525353/3

Matrix: Water

Analysis Batch: 525353

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	13.2		ug/L		132	50 - 150		
Surrogate	MRL %Recovery	MRL Qualifier	Limits								
4-Bromofluorobenzene (Surr)	99		38 - 134								

Lab Sample ID: 380-130371-C-3 MS

Matrix: Water

Analysis Batch: 525353

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	429		ug/L		107	68 - 122		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		38 - 134								

Lab Sample ID: 380-130371-C-3 MSD

Matrix: Water

Analysis Batch: 525353

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	433		ug/L		108	68 - 122	1	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		38 - 134								

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Lab Sample ID: MBL 380-128894/4-A

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 128894

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		01/19/25 20:30	01/20/25 06:02	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		01/19/25 20:30	01/20/25 06:02	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		01/19/25 20:30	01/20/25 06:02	1
Surrogate	MBL	MBL	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dibromopropane (Surr)	99		60 - 140			01/19/25 20:30	01/20/25 06:02	1

Lab Sample ID: LCS 380-128894/29-A

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 128894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.212		ug/L		106	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 380-128894/29-A

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 128894

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
1,2-Dibromo-3-Chloropropane			0.200	0.200		ug/L		100		70 - 130	
1,2-Dibromoethane			0.200	0.199		ug/L		100		70 - 130	
			LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dibromopropane (Surr)	100		60 - 140								

Lab Sample ID: MRL 380-128894/2-A

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 128894

			Spike	MRL	MRL				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,2,3-Trichloropropane			0.0200	0.0208		ug/L		104	60 - 140		
Surrogate	MRL	MRL									
	%Recovery	Qualifier	Limits								
1,2-Dibromopropane (Surr)	102		60 - 140								

Lab Sample ID: MRL 380-128894/3-A

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 128894

Analyte			Spike	MRL	MRL	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier				Limits		
1,2,3-Trichloropropane			0.0500	0.0532		ug/L		106	60 - 140		
1,2-Dibromo-3-Chloropropane			0.0100	0.0110		ug/L		110	60 - 140		
1,2-Dibromoethane			0.0100	0.00995	J	ug/L		100	60 - 140		
Surrogate	MRL	MRL									
	%Recovery	Qualifier	Limits								
1,2-Dibromopropane (Surr)	99		60 - 140								

Lab Sample ID: 380-130878-E-1-A MS

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 128894

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.25	1.16		ug/L		93	65 - 135
1,2-Dibromo-3-Chloropropane	<0.010		0.249	0.228		ug/L		91	65 - 135
1,2-Dibromoethane	<0.010		0.249	0.238		ug/L		96	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dibromopropane (Surr)	88		60 - 140						

Lab Sample ID: 380-130879-E-1-A DU

Matrix: Water

Analysis Batch: 129151

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 128894

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
1,2,3-Trichloropropane	<0.020		<0.020		ug/L		NC	20
1,2-Dibromo-3-Chloropropane	<0.010		<0.010		ug/L		NC	20
1,2-Dibromoethane	<0.010		<0.010		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC) (Continued)

Surrogate	%Recovery	DU DU Qualifier	Limits
1,2-Dibromopropane (Surr)	97		60 - 140

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 380-129356/4-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129356

Analyte	MB MB Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.50	0.50	ug/L		01/21/25 12:21	01/21/25 14:34	1
Chlordane (n.o.s.)	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1016	<0.070	0.070	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1221	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1232	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1242	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1248	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1254	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1
PCB-1260	<0.070	0.070	ug/L		01/21/25 12:21	01/21/25 14:34	1
Polychlorinated biphenyls, Total	<0.10	0.10	ug/L		01/21/25 12:21	01/21/25 14:34	1

Surrogate	MB MB %Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87	70 - 130	01/21/25 12:21	01/21/25 14:34	1

Lab Sample ID: LCS 380-129356/29-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	2.50	2.35	ug/L		94	70 - 130

Surrogate	LCS LCS %Recovery Qualifier	Limits
Tetrachloro-m-xylene	99	70 - 130

Lab Sample ID: LCS 380-129356/30-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	0.500	0.506	ug/L		101	70 - 130

Surrogate	LCS LCS %Recovery Qualifier	Limits
Tetrachloro-m-xylene	94	70 - 130

Lab Sample ID: LCS 380-129356/32-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1232	0.500	0.510	ug/L		102	70 - 130

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Lab Sample ID: LCS 380-129356/32-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

	LCS %Recovery	LCS Qualifier	Limits
Surrogate			
Tetrachloro-m-xylene	99		70 - 130

Lab Sample ID: LCSD 380-129356/31-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chlordane (n.o.s.)	0.500	0.503		ug/L		101	70 - 130	1	20
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Tetrachloro-m-xylene	93		70 - 130						

Lab Sample ID: MRL 380-129356/2-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Toxaphene	0.500	0.517		ug/L		103	50 - 150		
Surrogate	MRL %Recovery	MRL Qualifier	Limits						
Tetrachloro-m-xylene	97		70 - 130						

Lab Sample ID: MRL 380-129356/3-A

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chlordane (n.o.s.)	0.100	0.0901	J	ug/L		90	50 - 150		
Surrogate	MRL %Recovery	MRL Qualifier	Limits						
Tetrachloro-m-xylene	95		70 - 130						

Lab Sample ID: 380-130853-B-2-A MS

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Toxaphene	<0.50		2.48	2.29		ug/L		93	65 - 135		
Surrogate	MS %Recovery	MS Qualifier	Limits								
Tetrachloro-m-xylene	100		70 - 130								

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Lab Sample ID: 380-130853-C-1-A MS

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	<0.50		2.49	2.32		ug/L		93	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
Tetrachloro-m-xylene	100		70 - 130						

Lab Sample ID: 380-130853-D-1-A MS

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.10		0.489	0.465		ug/L		95	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
Tetrachloro-m-xylene	110		70 - 130						

Lab Sample ID: 380-130853-D-2-A MS

Matrix: Water

Analysis Batch: 129719

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 129356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.10		0.493	0.457		ug/L		93	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
Tetrachloro-m-xylene	108		70 - 130						

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

Lab Sample ID: MB 570-524661/1-A

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 524661

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/20/25 15:08	01/27/25 23:48	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/20/25 15:08	01/27/25 23:48	1
C8-C18	<25		25	ug/L		01/20/25 15:08	01/27/25 23:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	85		60 - 130			01/20/25 15:08	01/27/25 23:48	1

Lab Sample ID: LCS 570-524661/2-A

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1470		ug/L		92	56 - 127

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

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

Lab Sample ID: LCS 570-524661/2-A

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524661

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	86		60 - 130

Lab Sample ID: LCSD 570-524661/3-A

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 524661

Analysis Date: 01/06/20

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28			1600	1500		ug/L		93	56 - 127	2	23

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	88		60 - 130

Lab Sample ID: MRL 570-524661/4-A

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524661

			Spike	MRL	MRL					
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec	
C10-C28			0.0200	0.0287		mg/L		144	50 - 150	

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	90		60 - 130

Lab Sample ID: 380-130371-B-3-A MS

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 524661

Top Data: 02/00/2017									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<19		1640	1590		ua/L		97	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	112		60 - 130

Lab Sample ID: 380-130371-B-3-B MSD

Matrix: Water

Analysis Batch: 526993

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 524661

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	<19		1620	1540		ug/L		95	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	89		60 - 130

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 570-524799/11

Matrix: Water

Analysis Batch: 524799

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			01/21/25 13:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	104		54 - 120				01/21/25 13:35	1

Lab Sample ID: LCS 570-524799/12

Matrix: Water

Analysis Batch: 524799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	2.00	1.92		mg/L		96	78 - 131
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	86		54 - 120				

Lab Sample ID: LCSD 570-524799/13

Matrix: Water

Analysis Batch: 524799

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethanol	2.00	1.88		mg/L		94	78 - 131	2	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	95		54 - 120						

Lab Sample ID: MRL 570-524799/14

Matrix: Water

Analysis Batch: 524799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	0.100	0.113		mg/L		113	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	111		54 - 120				

Lab Sample ID: 380-131011-AB-1 MS

Matrix: Water

Analysis Batch: 524799

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
Ethanol	<0.10	F2	2.00	1.61		mg/L		81	20 - 173
Surrogate	MS %Recovery	MS Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	75		54 - 120						

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) (Continued)

Lab Sample ID: 380-131011-AB-1 MSD

Matrix: Water

Analysis Batch: 524799

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
Ethanol	<0.10	F2	2.00	2.06	F2	mg/L		103	20 - 173	25	21
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Hexafluoro-2-propanol (Surr)	108		54 - 120								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-128829/7

Matrix: Water

Analysis Batch: 128829

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	mg/L			01/18/25 09:51	1
Sulfate	<0.25		0.25	mg/L			01/18/25 09:51	1

Lab Sample ID: LCS 380-128829/10

Matrix: Water

Analysis Batch: 128829

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	25.0	26.7		mg/L		107	90 - 110		
Sulfate	50.0	52.8		mg/L		106	90 - 110		

Lab Sample ID: LCSD 380-128829/11

Matrix: Water

Analysis Batch: 128829

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25.0	27.1		mg/L		108	90 - 110	2	20
Sulfate	50.0	53.6		mg/L		107	90 - 110	1	20

Lab Sample ID: MRL 380-128829/8

Matrix: Water

Analysis Batch: 128829

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	0.125	0.134	J	mg/L		107	50 - 150		
Sulfate	0.250	0.269		mg/L		107	50 - 150		

Lab Sample ID: MRL 380-128829/9

Matrix: Water

Analysis Batch: 128829

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	0.500	0.500		mg/L		100	50 - 150		
Sulfate	1.00	1.01		mg/L		101	50 - 150		

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-131030-W-2 MS

Matrix: Water

Analysis Batch: 128829

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
Chloride	21		12.5	33.8		mg/L		105	80 - 120
Sulfate	65		25.0	91.1		mg/L		104	80 - 120

Lab Sample ID: 380-131030-W-2 MSD

Matrix: Water

Analysis Batch: 128829

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
Chloride	21		12.5	33.9		mg/L		107	80 - 120	0	20
Sulfate	65		25.0	91.7		mg/L		106	80 - 120	1	20

Lab Sample ID: MB 380-130357/6

Matrix: Water

Analysis Batch: 130357

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<5.0		5.0	ug/L			01/24/25 18:14	1

Lab Sample ID: LCS 380-130357/7

Matrix: Water

Analysis Batch: 130357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	99.6		ug/L		100	90 - 110

Lab Sample ID: LCSD 380-130357/8

Matrix: Water

Analysis Batch: 130357

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	100	98.1		ug/L		98	90 - 110	2	10

Lab Sample ID: MRL 380-130357/5

Matrix: Water

Analysis Batch: 130357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	5.10		ug/L		102	75 - 125

Lab Sample ID: 380-131506-Y-1 MS

Matrix: Water

Analysis Batch: 130357

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
Bromide	23		50.0	70.9		ug/L		96	80 - 120

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-131506-Y-1 MSD

Matrix: Water

Analysis Batch: 130357

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
Bromide	23		50.0	72.1		ug/L		98	80 - 120	2	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MBL 380-129289/88

Matrix: Water

Analysis Batch: 129289

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.070		1.0	mg/L			01/20/25 16:19	1
Magnesium	<0.0099		0.10	mg/L			01/20/25 16:19	1
Potassium	<0.12		1.0	mg/L			01/20/25 16:19	1
Sodium	<0.41		1.0	mg/L			01/20/25 16:19	1

Lab Sample ID: LCS 380-129289/92

Matrix: Water

Analysis Batch: 129289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50.0	51.5		mg/L		103	85 - 115
Magnesium	20.0	20.3		mg/L		101	85 - 115
Potassium	20.0	20.4		mg/L		102	85 - 115
Sodium	50.0	50.8		mg/L		102	85 - 115

Lab Sample ID: LCSD 380-129289/93

Matrix: Water

Analysis Batch: 129289

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	50.0	51.6		mg/L		103	85 - 115	0	20
Magnesium	20.0	20.4		mg/L		102	85 - 115	0	20
Potassium	20.0	20.5		mg/L		103	85 - 115	1	20
Sodium	50.0	51.1		mg/L		102	85 - 115	1	20

Lab Sample ID: LLCS 380-129289/89

Matrix: Water

Analysis Batch: 129289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	1.00	1.01		mg/L		101	50 - 150
Magnesium	0.100	0.0961	J	mg/L		96	50 - 150
Potassium	1.00	0.931	J	mg/L		93	50 - 150
Sodium	1.00	0.993	J	mg/L		99	50 - 150

Lab Sample ID: 380-131013-B-1 MS

Matrix: Water

Analysis Batch: 129289

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
Calcium	100		50.0	148		mg/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 380-131013-B-1 MS

Matrix: Water

Analysis Batch: 129289

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
Magnesium	13		20.0	32.8		mg/L		99	70 - 130
Potassium	2.3		20.0	22.8		mg/L		103	70 - 130
Sodium	13		50.0	63.4		mg/L		101	70 - 130

Lab Sample ID: 380-131013-B-1 MSD

Matrix: Water

Analysis Batch: 129289

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
Calcium	100		50.0	147		mg/L		93	70 - 130	1	20
Magnesium	13		20.0	32.6		mg/L		98	70 - 130	1	20
Potassium	2.3		20.0	22.7		mg/L		102	70 - 130	1	20
Sodium	13		50.0	63.1		mg/L		100	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MBL 380-130236/50

Matrix: Water

Analysis Batch: 130236

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.48		1.0	ug/L			01/23/25 21:56	1
Arsenic	<0.25		1.0	ug/L			01/23/25 21:56	1
Beryllium	<0.12		0.30	ug/L			01/23/25 21:56	1
Cadmium	<0.081		0.50	ug/L			01/23/25 21:56	1
Chromium	<0.33		0.90	ug/L			01/23/25 21:56	1
Copper	<0.28		1.0	ug/L			01/23/25 21:56	1
Lead	<0.084		0.50	ug/L			01/23/25 21:56	1
Nickel	<0.38		1.0	ug/L			01/23/25 21:56	1
Selenium	<0.25		2.0	ug/L			01/23/25 21:56	1
Silver	<0.30		0.50	ug/L			01/23/25 21:56	1
Thallium	<0.10		0.30	ug/L			01/23/25 21:56	1
Zinc	<4.3		20	ug/L			01/23/25 21:56	1

Lab Sample ID: LCS 380-130236/52

Matrix: Water

Analysis Batch: 130236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	50.3		ug/L		101	85 - 115
Arsenic	50.0	50.4		ug/L		101	85 - 115
Beryllium	50.0	50.5		ug/L		101	85 - 115
Cadmium	50.0	49.9		ug/L		100	85 - 115
Chromium	50.0	51.4		ug/L		103	85 - 115
Copper	50.0	49.5		ug/L		99	85 - 115
Lead	50.0	50.4		ug/L		101	85 - 115
Nickel	50.0	50.4		ug/L		101	85 - 115
Selenium	50.0	49.6		ug/L		99	85 - 115
Silver	50.0	52.2		ug/L		104	85 - 115
Thallium	50.0	51.1		ug/L		102	85 - 115

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 380-130236/52

Matrix: Water

Analysis Batch: 130236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	50.0	49.1		ug/L		98	85 - 115

Lab Sample ID: LCSD 380-130236/53

Matrix: Water

Analysis Batch: 130236

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	49.2		ug/L		98	85 - 115	2	20
Arsenic	50.0	50.0		ug/L		100	85 - 115	1	20
Beryllium	50.0	49.0		ug/L		98	85 - 115	3	20
Cadmium	50.0	48.6		ug/L		97	85 - 115	3	20
Chromium	50.0	50.6		ug/L		101	85 - 115	2	20
Copper	50.0	49.1		ug/L		98	85 - 115	1	20
Lead	50.0	49.5		ug/L		99	85 - 115	2	20
Nickel	50.0	49.9		ug/L		100	85 - 115	1	20
Selenium	50.0	49.6		ug/L		99	85 - 115	0	20
Silver	50.0	50.1		ug/L		100	85 - 115	4	20
Thallium	50.0	49.9		ug/L		100	85 - 115	2	20
Zinc	50.0	48.6		ug/L		97	85 - 115	1	20

Lab Sample ID: LLCS 380-130236/51

Matrix: Water

Analysis Batch: 130236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	1.00		ug/L		100	50 - 150
Arsenic	1.00	1.09		ug/L		109	50 - 150
Beryllium	0.300	0.282	J	ug/L		94	50 - 150
Cadmium	0.500	0.500		ug/L		100	50 - 150
Chromium	0.900	0.961		ug/L		107	50 - 150
Copper	1.00	1.01		ug/L		101	50 - 150
Lead	0.500	0.501		ug/L		100	50 - 150
Nickel	1.00	0.993	J	ug/L		99	50 - 150
Selenium	2.00	2.09		ug/L		104	50 - 150
Silver	0.500	0.526		ug/L		105	50 - 150
Thallium	0.300	0.302		ug/L		101	50 - 150
Zinc	20.0	19.8	J	ug/L		99	50 - 150

Lab Sample ID: 380-131541-A-2 MS

Matrix: Water

Analysis Batch: 130236

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
Antimony	<1.0		50.0	54.7		ug/L		109	70 - 130
Arsenic	<1.0		50.0	57.6		ug/L		114	70 - 130
Beryllium	<0.30		50.0	56.3		ug/L		113	70 - 130
Cadmium	<0.50		50.0	54.1		ug/L		108	70 - 130
Chromium	<0.90		50.0	52.5		ug/L		105	70 - 130
Copper	32		50.0	82.9		ug/L		101	70 - 130

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 380-131541-A-2 MS

Matrix: Water

Analysis Batch: 130236

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
Lead	<0.50		50.0	52.6		ug/L		105	70 - 130
Nickel	<1.0		50.0	52.4		ug/L		105	70 - 130
Selenium	<2.0		50.0	61.7		ug/L		123	70 - 130
Silver	<0.50		50.0	51.9		ug/L		104	70 - 130
Thallium	<0.30		50.0	53.7		ug/L		107	70 - 130
Zinc	<20		50.0	59.5		ug/L		119	70 - 130

Lab Sample ID: 380-131541-A-2 MSD

Matrix: Water

Analysis Batch: 130236

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
Antimony	<1.0		50.0	55.4		ug/L		111	70 - 130	1	20
Arsenic	<1.0		50.0	56.4		ug/L		111	70 - 130	2	20
Beryllium	<0.30		50.0	55.5		ug/L		111	70 - 130	1	20
Cadmium	<0.50		50.0	53.3		ug/L		107	70 - 130	2	20
Chromium	<0.90		50.0	51.7		ug/L		103	70 - 130	1	20
Copper	32		50.0	81.2		ug/L		98	70 - 130	2	20
Lead	<0.50		50.0	51.4		ug/L		103	70 - 130	2	20
Nickel	<1.0		50.0	50.9		ug/L		102	70 - 130	3	20
Selenium	<2.0		50.0	60.0		ug/L		120	70 - 130	3	20
Silver	<0.50		50.0	50.9		ug/L		102	70 - 130	2	20
Thallium	<0.30		50.0	51.9		ug/L		104	70 - 130	3	20
Zinc	<20		50.0	57.8		ug/L		116	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MBL 810-130662/1-A

Matrix: Water

Analysis Batch: 130718

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130662

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.063		0.20	ug/L		01/24/25 11:57	01/24/25 16:49	1

Lab Sample ID: LCS 810-130662/3-A

Matrix: Water

Analysis Batch: 130718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	0.994		ug/L		99	85 - 115

Lab Sample ID: LLCS 810-130662/2-A

Matrix: Water

Analysis Batch: 130718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130662

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.200	0.215		ug/L		108	50 - 150

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 810-134794-A-1-B MS
Matrix: Water
Analysis Batch: 130718

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 130662

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.20		1.00	1.03		ug/L		103	70 - 130

Lab Sample ID: 810-134794-A-1-C MSD
Matrix: Water
Analysis Batch: 130718

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 130662

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	<0.20		1.00	0.960		ug/L		96	70 - 130	7	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-129914/1
Matrix: Water
Analysis Batch: 129914

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<2.0		2.0	mg/L			01/22/25 17:51	1
Bicarbonate Alkalinity as CaCO3	2.52	B	2.0	mg/L			01/22/25 17:51	1
Carbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			01/22/25 17:51	1

Lab Sample ID: LCS 380-129914/4
Matrix: Water
Analysis Batch: 129914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	99.9		mg/L		100	90 - 110

Lab Sample ID: LCSD 380-129914/19
Matrix: Water
Analysis Batch: 129914

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Alkalinity	100	101		mg/L		101	90 - 110	1	20

Lab Sample ID: LLCS 380-129914/5
Matrix: Water
Analysis Batch: 129914

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	20.0	20.1		mg/L		100	90 - 110

Lab Sample ID: MRL 380-129914/2
Matrix: Water
Analysis Batch: 129914

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	2.00	2.54		mg/L		127	50 - 150

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 380-131011-G-1 MS

Matrix: Water

Analysis Batch: 129914

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
Alkalinity	59		100	159		mg/L		100	80 - 120

Lab Sample ID: 380-131011-G-1 MSD

Matrix: Water

Analysis Batch: 129914

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
Alkalinity	59		100	160		mg/L		101	80 - 120	1	20

Lab Sample ID: 380-131011-G-1 DU

Matrix: Water

Analysis Batch: 129914

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	59		59.1		mg/L		0.3	20
Bicarbonate Alkalinity as CaCO3	59	B ^2	59.1	B	mg/L		0.3	20
Carbonate Alkalinity as CaCO3	<2.0		<2.0		mg/L		NC	20

Lab Sample ID: MB 380-130197/1

Matrix: Water

Analysis Batch: 130197

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<2.0		2.0	mg/L			01/23/25 18:56	1
Bicarbonate Alkalinity as CaCO3	2.30	B	2.0	mg/L			01/23/25 18:56	1
Carbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			01/23/25 18:56	1

Lab Sample ID: LCS 380-130197/4

Matrix: Water

Analysis Batch: 130197

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	99.6		mg/L		100	90 - 110

Lab Sample ID: LCSD 380-130197/19

Matrix: Water

Analysis Batch: 130197

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	100	99.8		mg/L		100	90 - 110	0	20

Lab Sample ID: LLCS 380-130197/5

Matrix: Water

Analysis Batch: 130197

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	20.0	20.0		mg/L		100	90 - 110

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MRL 380-130197/2
Matrix: Water
Analysis Batch: 130197

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	2.00	2.48		mg/L		124	50 - 150

Lab Sample ID: 380-131022-2 MS
Matrix: Drinking Water
Analysis Batch: 130197

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	56		100	160		mg/L		104	80 - 120

Lab Sample ID: 380-131022-2 MSD
Matrix: Drinking Water
Analysis Batch: 130197

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	56		100	160		mg/L		104	80 - 120	0	20

Lab Sample ID: 380-131022-2 DU
Matrix: Drinking Water
Analysis Batch: 130197

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	56		55.7		mg/L		0	20
Bicarbonate Alkalinity as CaCO3	56	B ^2	55.7	B	mg/L		0	20
Carbonate Alkalinity as CaCO3	<2.0		<2.0		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-130052/3
Matrix: Water
Analysis Batch: 130052

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	umhos/cm			01/22/25 17:51	1

Lab Sample ID: LCS 380-130052/5
Matrix: Water
Analysis Batch: 130052

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1000	992		umhos/cm		99	90 - 110

Lab Sample ID: LCSD 380-130052/17
Matrix: Water
Analysis Batch: 130052

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Specific Conductance	1000	988		umhos/cm		99	90 - 110	0	10

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: MRL 380-130052/4
Matrix: Water
Analysis Batch: 130052

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	2.00	1.90	J	umhos/cm		95	50 - 150

Lab Sample ID: 380-131011-G-1 DU
Matrix: Water
Analysis Batch: 130052

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	500		497		umhos/cm		0.2	20

Lab Sample ID: MB 380-130200/3
Matrix: Water
Analysis Batch: 130200

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	umhos/cm			01/23/25 18:56	1

Lab Sample ID: LCS 380-130200/5
Matrix: Water
Analysis Batch: 130200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1000	997		umhos/cm		100	90 - 110

Lab Sample ID: LCSD 380-130200/17
Matrix: Water
Analysis Batch: 130200

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Specific Conductance	1000	995		umhos/cm		100	90 - 110	0	10

Lab Sample ID: MRL 380-130200/4
Matrix: Water
Analysis Batch: 130200

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	2.00	1.90	J	umhos/cm		95	50 - 150

Lab Sample ID: 380-131022-2 DU
Matrix: Drinking Water
Analysis Batch: 130200

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	420		418		umhos/cm		0.2	20

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 380-129059/1
Matrix: Water
Analysis Batch: 129059

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	mg/L			01/20/25 09:36	1

Lab Sample ID: HLCS 380-129059/5
Matrix: Water
Analysis Batch: 129059

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

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	700	702		mg/L		100	80 - 114

Lab Sample ID: LCS 380-129059/4
Matrix: Water
Analysis Batch: 129059

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	175	164		mg/L		94	80 - 114

Lab Sample ID: MRL 380-129059/2
Matrix: Water
Analysis Batch: 129059

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	10.0		mg/L		100	50 - 150

Lab Sample ID: MRL 380-129059/3
Matrix: Water
Analysis Batch: 129059

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	10.0		mg/L		100	50 - 150

Lab Sample ID: 380-131013-C-1 DU
Matrix: Water
Analysis Batch: 129059

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	400		392		mg/L		3	10

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-129912/40
Matrix: Water
Analysis Batch: 129912

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			01/22/25 16:24	1

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 380-129912/74

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			01/22/25 18:55	1

Lab Sample ID: LCS 380-129912/42

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.00	1.05		mg/L		105	90 - 110

Lab Sample ID: LCS 380-129912/76

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.00	1.07		mg/L		107	90 - 110

Lab Sample ID: LCSD 380-129912/43

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.00	1.06		mg/L		106	90 - 110	1	10

Lab Sample ID: LCSD 380-129912/77

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.00	1.07		mg/L		107	90 - 110	0	10

Lab Sample ID: MRL 380-129912/41

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0413	J	mg/L		83	50 - 150

Lab Sample ID: MRL 380-129912/75

Matrix: Water

Analysis Batch: 129912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0433	J	mg/L		87	50 - 150

Lab Sample ID: 380-130433-A-4 MS

Matrix: Water

Analysis Batch: 129912

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
Fluoride	0.34		1.00	1.44		mg/L		109	80 - 120

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QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 4500 F C - Fluoride

Lab Sample ID: 380-130433-A-4 MSD
Matrix: Water
Analysis Batch: 129912

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
Fluoride	0.34		1.00	1.44		mg/L		109	80 - 120	0	20

Lab Sample ID: 380-130693-C-1 MS
Matrix: Water
Analysis Batch: 129912

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	RPD	RPD Limit
Fluoride	<0.050		1.00	1.14		mg/L		114	80 - 120		

Lab Sample ID: 380-130693-C-1 MSD
Matrix: Water
Analysis Batch: 129912

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
Fluoride	<0.050		1.00	1.14		mg/L		114	80 - 120	0	20

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-129919/5
Matrix: Water
Analysis Batch: 129919

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.5			SU			01/22/25 17:51	1

Lab Sample ID: LCS 380-129919/6
Matrix: Water
Analysis Batch: 129919

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	6.00	6.0		SU		100	98 - 102		

Lab Sample ID: LCSD 380-129919/18
Matrix: Water
Analysis Batch: 129919

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	6.00	6.0		SU		100	98 - 102	0	2

Lab Sample ID: 380-131011-G-1 DU
Matrix: Water
Analysis Batch: 129919

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.8		7.8		SU		0.1	2

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: MB 380-130202/5
Matrix: Water
Analysis Batch: 130202

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.6			SU			01/23/25 18:56	1

Lab Sample ID: LCS 380-130202/6
Matrix: Water
Analysis Batch: 130202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	6.00	6.0		SU		100	98 - 102

Lab Sample ID: LCSD 380-130202/18
Matrix: Water
Analysis Batch: 130202

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	6.00	6.0		SU		100	98 - 102	0	2

Lab Sample ID: 380-131022-2 DU
Matrix: Drinking Water
Analysis Batch: 130202

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	HF	8.0		SU		0.9	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MBL 380-129133/2
Matrix: Water
Analysis Batch: 129133

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

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.0099		0.050	mg/L			01/20/25 16:55	1

Lab Sample ID: LCS 380-129133/4
Matrix: Water
Analysis Batch: 129133

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.250	0.233		mg/L		93	90 - 110

Lab Sample ID: LCSD 380-129133/5
Matrix: Water
Analysis Batch: 129133

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.250	0.268		mg/L		107	90 - 110	14	20

QC Sample Results

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

Job ID: 380-131022-1
SDG: Quarterly

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: MRL 380-129133/3
Matrix: Water
Analysis Batch: 129133

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.0500	0.0640		mg/L		128	50 - 150

Lab Sample ID: 380-131006-J-1 MS
Matrix: Water
Analysis Batch: 129133

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
Sulfide	<0.050	F1	0.250	0.391	F1	mg/L		149	80 - 120

Lab Sample ID: 380-131006-J-1 MSD
Matrix: Water
Analysis Batch: 129133

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
Sulfide	<0.050	F1	0.250	0.388	F1	mg/L		148	80 - 120	1	20

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

GC/MS VOA

Analysis Batch: 129749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	524.2	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	524.2	
MB 380-129749/11	Method Blank	Total/NA	Water	524.2	
LCS 380-129749/8	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-129749/9	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-129749/10	Lab Control Sample	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 129273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
MB 380-129273/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-129273/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-129273/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-131022-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
380-131022-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	

Analysis Batch: 129391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	129273
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	129273
MB 380-129273/21-A	Method Blank	Total/NA	Water	525.2	129273
LCS 380-129273/23-A	Lab Control Sample	Total/NA	Water	525.2	129273
MRL 380-129273/22-A	Lab Control Sample	Total/NA	Water	525.2	129273
380-131022-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	129273
380-131022-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	129273

Prep Batch: 524601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	
MB 570-524601/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-524601/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-524601/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 526704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	524601
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	524601
MB 570-524601/1-A	Method Blank	Total/NA	Water	625.1	524601

Analysis Batch: 527743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1 SIM	524601
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1 SIM	524601
MB 570-524601/1-A	Method Blank	Total/NA	Water	625.1 SIM	524601
LCS 570-524601/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	524601
LCSD 570-524601/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	524601

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

GC VOA

Analysis Batch: 525353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B GRO LL	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B GRO LL	
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	Total/NA	Water	8015B GRO LL	
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Water	8015B GRO LL	
MB 570-525353/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-525353/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-525353/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-525353/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-130371-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-130371-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 128894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	504.1	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	504.1	
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	Total/NA	Water	504.1	
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Water	504.1	
MBL 380-128894/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-128894/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-128894/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-128894/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-130878-E-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-130879-E-1-A DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 129151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	504.1	128894
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	504.1	128894
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	Total/NA	Water	504.1	128894
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	Total/NA	Water	504.1	128894
MBL 380-128894/4-A	Method Blank	Total/NA	Water	504.1	128894
LCS 380-128894/29-A	Lab Control Sample	Total/NA	Water	504.1	128894
MRL 380-128894/2-A	Lab Control Sample	Total/NA	Water	504.1	128894
MRL 380-128894/3-A	Lab Control Sample	Total/NA	Water	504.1	128894
380-130878-E-1-A MS	Matrix Spike	Total/NA	Water	504.1	128894
380-130879-E-1-A DU	Duplicate	Total/NA	Water	504.1	128894

Prep Batch: 129356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	505	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	505	
MB 380-129356/4-A	Method Blank	Total/NA	Water	505	
LCS 380-129356/29-A	Lab Control Sample	Total/NA	Water	505	
LCS 380-129356/30-A	Lab Control Sample	Total/NA	Water	505	
LCS 380-129356/32-A	Lab Control Sample	Total/NA	Water	505	
LCSD 380-129356/31-A	Lab Control Sample Dup	Total/NA	Water	505	
MRL 380-129356/2-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-129356/3-A	Lab Control Sample	Total/NA	Water	505	
380-130853-B-2-A MS	Matrix Spike	Total/NA	Water	505	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

GC Semi VOA (Continued)

Prep Batch: 129356 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130853-C-1-A MS	Matrix Spike	Total/NA	Water	505	
380-130853-D-1-A MS	Matrix Spike	Total/NA	Water	505	
380-130853-D-2-A MS	Matrix Spike	Total/NA	Water	505	

Analysis Batch: 129719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	505	129356
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	505	129356
MB 380-129356/4-A	Method Blank	Total/NA	Water	505	129356
LCS 380-129356/29-A	Lab Control Sample	Total/NA	Water	505	129356
LCS 380-129356/30-A	Lab Control Sample	Total/NA	Water	505	129356
LCS 380-129356/32-A	Lab Control Sample	Total/NA	Water	505	129356
LCSD 380-129356/31-A	Lab Control Sample Dup	Total/NA	Water	505	129356
MRL 380-129356/2-A	Lab Control Sample	Total/NA	Water	505	129356
MRL 380-129356/3-A	Lab Control Sample	Total/NA	Water	505	129356
380-130853-B-2-A MS	Matrix Spike	Total/NA	Water	505	129356
380-130853-C-1-A MS	Matrix Spike	Total/NA	Water	505	129356
380-130853-D-1-A MS	Matrix Spike	Total/NA	Water	505	129356
380-130853-D-2-A MS	Matrix Spike	Total/NA	Water	505	129356

Prep Batch: 524661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	3510C	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	3510C	
MB 570-524661/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-524661/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-524661/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-524661/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-130371-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-130371-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 524799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	
MB 570-524799/11	Method Blank	Total/NA	Water	8015B	
LCS 570-524799/12	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-524799/13	Lab Control Sample Dup	Total/NA	Water	8015B	
MRL 570-524799/14	Lab Control Sample	Total/NA	Water	8015B	
380-131011-AB-1 MS	Matrix Spike	Total/NA	Water	8015B	
380-131011-AB-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	

Analysis Batch: 526993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B	524661
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	524661
MB 570-524661/1-A	Method Blank	Total/NA	Water	8015B	524661
LCS 570-524661/2-A	Lab Control Sample	Total/NA	Water	8015B	524661
LCSD 570-524661/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	524661
MRL 570-524661/4-A	Lab Control Sample	Total/NA	Water	8015B	524661
380-130371-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	524661

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

GC Semi VOA (Continued)

Analysis Batch: 526993 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130371-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	524661

HPLC/IC

Analysis Batch: 128829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	300.0	
MB 380-128829/7	Method Blank	Total/NA	Water	300.0	
LCS 380-128829/10	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-128829/11	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-128829/8	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-128829/9	Lab Control Sample	Total/NA	Water	300.0	
380-131030-W-2 MS	Matrix Spike	Total/NA	Water	300.0	
380-131030-W-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 130357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	300.0	
MB 380-130357/6	Method Blank	Total/NA	Water	300.0	
LCS 380-130357/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-130357/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-130357/5	Lab Control Sample	Total/NA	Water	300.0	
380-131506-Y-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-131506-Y-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Analysis Batch: 129289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.7 Rev 4.4	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	200.7 Rev 4.4	
MBL 380-129289/88	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-129289/92	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-129289/93	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-129289/89	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-131013-B-1 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-131013-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 130236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.8	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	200.8	
MBL 380-130236/50	Method Blank	Total/NA	Water	200.8	
LCS 380-130236/52	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-130236/53	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-130236/51	Lab Control Sample	Total/NA	Water	200.8	
380-131541-A-2 MS	Matrix Spike	Total/NA	Water	200.8	
380-131541-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Metals

Prep Batch: 130662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	245.1	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	245.1	
MBL 810-130662/1-A	Method Blank	Total/NA	Water	245.1	
LCS 810-130662/3-A	Lab Control Sample	Total/NA	Water	245.1	
LLCS 810-130662/2-A	Lab Control Sample	Total/NA	Water	245.1	
810-134794-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	
810-134794-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 130718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	245.1	130662
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	245.1	130662
MBL 810-130662/1-A	Method Blank	Total/NA	Water	245.1	130662
LCS 810-130662/3-A	Lab Control Sample	Total/NA	Water	245.1	130662
LLCS 810-130662/2-A	Lab Control Sample	Total/NA	Water	245.1	130662
810-134794-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	130662
810-134794-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	130662

General Chemistry

Analysis Batch: 129059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2540C	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2540C	
MB 380-129059/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-129059/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-129059/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-129059/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-129059/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-131013-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 129133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 S2 D	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 S2 D	
MBL 380-129133/2	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-129133/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-129133/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-129133/3	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-131006-J-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
380-131006-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 129912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 F C	
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 F C	
MB 380-129912/40	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-129912/74	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-129912/42	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 380-129912/76	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-129912/43	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

General Chemistry (Continued)

Analysis Batch: 129912 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 380-129912/77	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-129912/41	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-129912/75	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-130433-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-130433-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
380-130693-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-130693-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 129914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2320B	
MB 380-129914/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-129914/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-129914/19	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-129914/5	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-129914/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-131011-G-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-131011-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-131011-G-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 129919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-129919/5	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-129919/6	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-129919/18	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-131011-G-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 130052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2510B	
MB 380-130052/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-130052/5	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-130052/17	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-130052/4	Lab Control Sample	Total/NA	Water	SM 2510B	
380-131011-G-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 130197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2320B	
MB 380-130197/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-130197/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-130197/19	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-130197/5	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-130197/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-131022-2 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2320B	
380-131022-2 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2320B	
380-131022-2 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2320B	

QC Association Summary

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

Job ID: 380-131022-1
SDG: Quarterly

General Chemistry

Analysis Batch: 130200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2510B	
MB 380-130200/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-130200/5	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-130200/17	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-130200/4	Lab Control Sample	Total/NA	Water	SM 2510B	
380-131022-2 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2510B	

Analysis Batch: 130202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-130202/5	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-130202/6	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-130202/18	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-131022-2 DU	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-131022-1

Date Collected: 01/15/25 09:00

Matrix: Drinking Water

Date Received: 01/17/25 10:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	129749	WE3W	EA POM	01/23/25 02:36
Total/NA	Prep	525.2			129273	OTM3	EA POM	01/21/25 06:08
Total/NA	Analysis	525.2		1	129391	UPAC	EA POM	01/21/25 16:46
Total/NA	Prep	625.1			524601	H1SH	EET CAL 4	01/20/25 13:18
Total/NA	Analysis	625.1		1	526704	PQS1	EET CAL 4	01/27/25 16:49
Total/NA	Prep	625.1			524601	H1SH	EET CAL 4	01/20/25 13:18
Total/NA	Analysis	625.1 SIM		1	527743	PQS1	EET CAL 4	01/29/25 19:45
Total/NA	Analysis	8015B GRO LL		1	525353	A9VE	EET CAL 4	01/22/25 20:12
Total/NA	Prep	504.1			128894	LZ8Q	EA POM	01/19/25 20:30 - 01/19/25 21:30 ¹
Total/NA	Analysis	504 1		1	129151	LZ8Q	EA POM	01/20/25 11:45
Total/NA	Prep	505			129356	DR5R	EA POM	01/21/25 12:21 - 01/21/25 13:30 ¹
Total/NA	Analysis	505		1	129719	DR5R	EA POM	01/21/25 22:01
Total/NA	Prep	3510C			524661	TVD6	EET CAL 4	01/20/25 15:09
Total/NA	Analysis	8015B		1	526993	E5RH	EET CAL 4	01/28/25 04:02
Total/NA	Analysis	8015B		1	524799	ZE2W	EET CAL 4	01/21/25 16:08
Total/NA	Analysis	300.0		5	128829	DXD4	EA POM	01/18/25 14:03
Total/NA	Analysis	300.0		1	130357	UNJR	EA POM	01/25/25 05:39
Total/NA	Analysis	200.7 Rev 4.4		1	129289	MF7S	EA POM	01/20/25 16:39
Total/NA	Analysis	200.8		1	130236	VB9B	EA POM	01/23/25 23:00
Total/NA	Prep	245.1			130662	AC	EA SB	01/24/25 11:57
Total/NA	Analysis	245.1		1	130718	AC	EA SB	01/24/25 17:12
Total/NA	Analysis	SM 2320B		1	129914	PK4Q	EA POM	01/22/25 20:20
Total/NA	Analysis	SM 2510B		1	130052	PK4Q	EA POM	01/22/25 20:20
Total/NA	Analysis	SM 2540C		1	129059	WZH3	EA POM	01/20/25 09:36
Total/NA	Analysis	SM 4500 F C		1	129912	PK4Q	EA POM	01/22/25 20:38
Total/NA	Analysis	SM 4500 H+ B		1	129919	PK4Q	EA POM	01/22/25 20:20
Total/NA	Analysis	SM 4500 S2 D		1	129133	ZJ2C	EA POM	01/20/25 16:55

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	129749	WE3W	EA POM	01/23/25 03:00
Total/NA	Prep	525.2			129273	OTM3	EA POM	01/21/25 06:08
Total/NA	Analysis	525.2		1	129391	UPAC	EA POM	01/21/25 18:29
Total/NA	Prep	625.1			524601	H1SH	EET CAL 4	01/20/25 13:18
Total/NA	Analysis	625.1		1	526704	PQS1	EET CAL 4	01/27/25 17:12
Total/NA	Prep	625.1			524601	H1SH	EET CAL 4	01/20/25 13:18
Total/NA	Analysis	625.1 SIM		1	527743	PQS1	EET CAL 4	01/29/25 20:07
Total/NA	Analysis	8015B GRO LL		1	525353	A9VE	EET CAL 4	01/22/25 20:37

Eurofins Eaton Analytical Pomona

Lab Chronicle

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

Job ID: 380-131022-1
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-131022-2

Date Collected: 01/15/25 09:40

Matrix: Drinking Water

Date Received: 01/17/25 10:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	504.1			128894	LZ8Q	EA POM	01/19/25 20:30 - 01/19/25 21:30 ¹
Total/NA	Analysis	504.1		1	129151	LZ8Q	EA POM	01/20/25 12:49
Total/NA	Prep	505			129356	DR5R	EA POM	01/21/25 12:21 - 01/21/25 13:30 ¹
Total/NA	Analysis	505		1	129719	DR5R	EA POM	01/21/25 22:23
Total/NA	Prep	3510C			524661	TVD6	EET CAL 4	01/20/25 15:09
Total/NA	Analysis	8015B		1	526993	E5RH	EET CAL 4	01/28/25 04:24
Total/NA	Analysis	8015B		1	524799	ZE2W	EET CAL 4	01/21/25 16:29
Total/NA	Analysis	300.0		2	128829	DXD4	EA POM	01/18/25 13:46
Total/NA	Analysis	300.0		1	130357	UNJR	EA POM	01/25/25 06:05
Total/NA	Analysis	200.7 Rev 4.4		1	129289	MF7S	EA POM	01/20/25 16:40
Total/NA	Analysis	200.8		1	130236	VB9B	EA POM	01/23/25 23:02
Total/NA	Prep	245.1			130662	AC	EA SB	01/24/25 11:57
Total/NA	Analysis	245.1		1	130718	AC	EA SB	01/24/25 17:14
Total/NA	Analysis	SM 2320B		1	130197	PK4Q	EA POM	01/23/25 19:44
Total/NA	Analysis	SM 2510B		1	130200	PK4Q	EA POM	01/23/25 19:44
Total/NA	Analysis	SM 2540C		1	129059	WZH3	EA POM	01/20/25 09:36
Total/NA	Analysis	SM 4500 F C		1	129912	PK4Q	EA POM	01/22/25 18:12
Total/NA	Analysis	SM 4500 H+ B		1	130202	PK4Q	EA POM	01/23/25 19:44
Total/NA	Analysis	SM 4500 S2 D		1	129133	ZJ2C	EA POM	01/20/25 16:55

Client Sample ID: TB: AIEA WELLS P1 (260) (331-003-WL102)

Lab Sample ID: 380-131022-3

Date Collected: 01/15/25 09:00

Matrix: Water

Date Received: 01/17/25 10:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	525353	A9VE	EET CAL 4	01/22/25 23:03
Total/NA	Prep	504.1			128894	LZ8Q	EA POM	01/19/25 20:30 - 01/19/25 21:30 ¹
Total/NA	Analysis	504.1		1	129151	LZ8Q	EA POM	01/20/25 10:19

Client Sample ID: TB: AIEA WELLS P2 (260) (331-004-WL103)

Lab Sample ID: 380-131022-4

Date Collected: 01/15/25 09:40

Matrix: Water

Date Received: 01/17/25 10:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	525353	A9VE	EET CAL 4	01/22/25 23:27
Total/NA	Prep	504.1			128894	LZ8Q	EA POM	01/19/25 20:30 - 01/19/25 21:30 ¹
Total/NA	Analysis	504.1		1	129151	LZ8Q	EA POM	01/20/25 09:58

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-131022-1
SDG: Quarterly

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
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
505	505	Drinking Water	Polychlorinated biphenyls, Total
524.2		Drinking Water	Tertiary Butyl Alcohol (TBA)
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4' DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4'-DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
SM 2320B		Drinking Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Drinking Water	Carbonate Alkalinity as CaCO3
SM 4500 S2 D		Drinking Water	Sulfide

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-131022-1
SDG: Quarterly

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
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	02-12-25
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	525-23-159-97150	06-08-26
Washington	State	C916	10-11-25

Laboratory: Eurofins Eaton Analytical South Bend

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	ISO/IEC 17025	5794.01	07-31-26
Alabama	State	40700	06-30-25
Alaska	State	IN00035	06-30-25
Arizona	State	AZ0432	07-26-25
Arkansas (DW)	State	EPA IN00035	06-30-25
California	State	2920	06-30-25
Colorado	State	IN00035	02-28-25
Connecticut	State	PH-0132	03-31-26
Delaware (DW)	State	IN00035	06-30-25
Florida	NELAP	E87775	06-30-25
Georgia (DW)	State	929	01-31-25
Guam	State	23-011R	07-15-25
Hawaii	State	IN035	06-30-25
Idaho (DW)	State	IN00035	12-31-25
IL Dept. of Public Health (Micro)	State	17767	06-30-25
Illinois	NELAP	200001	09-30-25
Indiana	State	C-71-01	12-31-25
Indiana (Micro)	State	M-76-07	12-31-25
Iowa	State	IA Lab #098	11-01-25
Kansas	NELAP	E-10233	10-31-25
Kentucky (DW)	State	KY90056	12-31-25
Louisiana (DW)	State	LA014	12-31-25
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-25
Massachusetts	State	M-IN035	06-30-25
MI - RadChem Recognition	State	9926	06-01-25
Michigan	State	9926	12-31-25
Minnesota	NELAP	018-999-338	12-31-25
Mississippi	State	IN00035	06-30-25
Missouri	State	880	09-30-27
Montana (DW)	State	CERT0026	01-01-26
Nebraska	State	NE-OS-05-04	06-30-25
Nevada	State	IN000352024-01	07-31-25
New Hampshire	NELAP	2124	11-05-25
New Jersey	NELAP	IN598	06-30-25
New Mexico	State	IN00035	06-30-25

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Laboratory: Eurofins Eaton Analytical South Bend (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
New York	NELAP	11398	03-02-25
North Carolina (DW)	State	18700	07-31-25
North Dakota	State	R-035	06-30-24 *
Northern Mariana Islands (DW)	State	IN00035	06-30-25
Ohio	State	87775	06-30-25
Oklahoma	NELAP	D9508	08-31-25
Oregon	NELAP	4156	09-16-25
Pennsylvania	NELAP	68-00466	04-30-25
Puerto Rico	State	IN00035	04-01-25
Rhode Island	State	LAO00343	02-13-25
South Carolina	State	95005001	06-30-25
South Dakota (DW)	State	IN00035	01-28-25
Tennessee	State	TN02973	06-30-25
Texas	NELAP	T104704187-22-16	01-28-25
Texas	TCEQ Water Supply	TX207	06-30-25
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25
Utah	NELAP	IN00035	07-31-25
Vermont	State	VT-8775	11-15-25
Virginia	NELAP	460275	03-14-25
Washington	State	C837	01-01-26
West Virginia (DW)	State	9927 C	01-31-25
Wisconsin	State	999766900	02-11-25
Wisconsin (Micro)	State	10121	12-31-25
Wyoming	State	8TMS-L	06-30-25

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

Eurofins Eaton Analytical Pomona

Method Summary

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

Job ID: 380-131022-1
SDG: Quarterly

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA POM
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
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	EA POM
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA POM
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET CAL 4
300.0	Anions, Ion Chromatography	EPA	EA POM
200.7 Rev 4.4	Metals (ICP)	EPA	EA POM
200.8	Metals (ICP/MS)	EPA	EA POM
245.1	Mercury (CVAA)	EPA	EA SB
SM 2320B	Alkalinity	SM	EA POM
SM 2510B	Conductivity, Specific Conductance	SM	EA POM
SM 2540C	Solids, Total Dissolved (TDS)	SM	EA POM
SM 4500 F C	Fluoride	SM	EA POM
SM 4500 H+ B	pH	SM	EA POM
SM 4500 S2 D	Sulfide, Total	SM	EA POM
245.1	Preparation, Mercury	EPA	EA SB
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
504.1	Microextraction	EPA-DW	EA POM
505	Extraction, Organohalide Pesticides	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
None	Autocomplete Prep - Metals - No Digestion required	None	EA POM

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
EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.
EPA-DW2 = "Methods For The Determination of Organic Compounds in Drinking Water - Supplement III ", EPA/600/R-95-131, August 1995
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
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
EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777
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: 380-131022-1
SDG: Quarterly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-131022-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	01/15/25 09:00	01/17/25 10:28	HI0000331
380-131022-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	01/15/25 09:40	01/17/25 10:28	HI0000331
380-131022-3	TB: AIEA WELLS P1 (260) (331-003-WL102)	Water	01/15/25 09:00	01/17/25 10:28	
380-131022-4	TB: AIEA WELLS P2 (260) (331-004-WL103)	Water	01/15/25 09:40	01/17/25 10:28	

Monrovia, CA (Suite 100)

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

Chain of Custody Record



Client Information Client Contact: Dr Ron Fenstermacher Phone: 808-748-5840 City and County of Honolulu Address: 630 South Beretania St Chemistry Lab City: Honolulu State, Zip: Hawaii 96843 Phone: 808-748-5841 Email: RFENSTERMACH@hbws.org Project Name: RED HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill Site: Hawaii		Sampler: Olat Happe Phone: 808-748-5840 City and County of Honolulu Address: 630 South Beretania St Chemistry Lab City: Honolulu State, Zip: Hawaii 96843 Phone: 808-748-5841 Email: RFENSTERMACH@hbws.org Project Name: RED HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill Site: Hawaii		Lao PM: Arada, Rachelle E-Mail: Rachelle.Arada@eurofins.com Carrier Tracking No(s): State of Origin: Page: Page 1 of 2 Job #:		COC No: Analysis Requested: Due Date Requested: TAT Requested (days): Compliance Project: ☐ Yes ☒ No PO #: C20525101 exp 05312023 WO #: 36001111 Project #: SSOW#:		Preservation Codes: 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: ammonium acetate Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) ammonium acetate													
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, Other)	Field Filtered Sample (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015 DRO_LL_CS_HNL Ranges	525.2 PREC, 525plus, PLUS, TICs	625.1 SIM, 625.1	300 OF 28D, B, 4500 F, C, 300 OF 28D, PREC	2540C, alcid - Total Dissolved Solids	SM4500_S2_D - Sulfide Total	245.1	2320B, SM4500_H+, 2510B	8015 GRO_LL (MOD)	8015 DAC - Ethanol	524.2 pres_PREC, 524.2 SIM	504.1 PREC, 505.1 PREC	Total Number of Containers	Special Instructions/Note:
AIEA GULCH WELLS PUMP 1	1/15/25		G	Water				2	3	2	2	1	1	1	1	3	2	6	6		Chlorinated
AIEA GULCH WELLS PUMP 2	1/15/25		G	Water				2	3	2	2	1	1	1	1	3	2	6	6		Chlorinated
TB. AIEA GULCH WELLS PUMP 1	1/15/25			Water																	
TB. AIEA GULCH WELLS PUMP 2	1/15/25			Water																	
																					380-131022 COC
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)																					
Empty Kit Relinquished by: [Redacted] Relinquished by: [Redacted] Relinquished by: [Redacted] Relinquished by: [Redacted]																					
Custody Seals Intact: ☒ Yes ☐ No Custody Seal No.																					

941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record



Environment Testing

Loc: 380

131022

[illegible]

Chain of Custody Record

[illegible]

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131022-1

SDG Number: Quarterly

Login Number: 131022

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Sanchez Velasquez, Gustavo

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131022-1

SDG Number: Quarterly

Login Number: 131022

List Number: 2

Creator: Skinner, Alma D

List Source: Eurofins Calscience

List Creation: 01/20/25 09:08 AM

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.	True	
Sample custody seals, if present, are intact.	True	
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	3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131022-1

SDG Number: Quarterly

Login Number: 131022

List Number: 3

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 01/20/25 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131022-1

SDG Number: Quarterly

Login Number: 131022

List Number: 4

Creator: Trowbridge, Peyton

List Source: Eurofins Eaton Analytical South Bend

List Creation: 01/21/25 12:10 PM

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.	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	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	