

ANALYTICAL REPORT

PREPARED FOR

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Generated 8/19/2024 11:34:57 AM

JOB DESCRIPTION

RED-HILL
Quarterly

JOB NUMBER

380-105515-1

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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Definitions/Glossary

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

Job ID: 380-105515-1
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 VOA TICs

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

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

GC Semi VOA

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

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
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
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
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: 380-105515-1
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

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Case Narrative

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

Job ID: 380-105515-1

Job ID: 380-105515-1

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Job Narrative 380-105515-1

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 7/24/2024 9:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.9°C and 2.2°C.

GC/MS VOA

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

GC/MS Semi VOA

Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-100689 and analytical batch 380-100873 was below control limits for Anthracene. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 625.1 SIM: The laboratory control sample (LCS) and laboratory control sample (LCSD) for preparation batch 570-463841 and analytical batch 570-464754 recovered outside control limits for the following analytes: 2-Chloronaphthalene, Aniline, Benzidine, bis (2-Chloroisopropyl) ether, Hexachloroethane and Nitrobenzene. The LCS and LCSD were re-prep and re-ran on instrument. The LCS and LCSD failed low on 2nd attempt. The sample HT: expired. Data excluded due to this QC failure. Client will re-sample.

Method 625.1 SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-463841 and analytical batch 570-464754 recovered outside control limits for the following analytes: Aniline and Benzidine. Data excluded, client will re-sample.

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

Method 8015B: The method reporting limit check (MRL) for analytical batch 570-467577 recovered outside control limits for the following analytes: Ethanol. The MRL recovered at 45% and the lower control limit is 50%. The client was contacted regarding this issue, 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.

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

Hydrocarbons

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.

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Case Narrative

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

Job ID: 380-105515-1

Job ID: 380-105515-1 (Continued)

Eurofins Eaton Analytical Pomona

HPLC/IC

Method 300_OF_48H_PREC: The following sample was diluted for Nitrite as N to prevent detector saturation due to high conductivity: Aiea Wells P2 (380-105515-1). Elevated reporting limits (RLs) are provided.

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 380-100870 contained Silver above the detection limit. 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.

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Detection Summary

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

Job ID: 380-105515-1
 SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Tertiary Butyl Alcohol (TBA)	2.1		2.0	ug/L	1		524.2	Total/NA
Bromide	360		5.0	ug/L	1		300.0	Total/NA
Chloride	100		2.5	mg/L	5		300.0	Total/NA
Nitrate as N	0.87		0.25	mg/L	5		300.0	Total/NA
Sulfate	17		1.3	mg/L	5		300.0	Total/NA
Calcium	20		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	18		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.5		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	38		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.3		1.0	ug/L	1		200.8	Total/NA
Alkalinity	57		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	57		2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	490		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	300		20	mg/L	1		SM 2540C	Total/NA
Fluoride	0.053		0.050	mg/L	1		SM 4500 F C	Total/NA
pH	7.9	HF		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

Method: EPA-DW 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.50		0.50	ug/L			07/31/24 00:12	1

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)	2.1		2.0	ug/L			07/25/24 22:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		07/25/24 22:42	1
4-Bromofluorobenzene (Surr)	94		70 - 130		07/25/24 22:42	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		07/25/24 22:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:12	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/31/24 00:12	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:12	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/31/24 00:12	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/31/24 00:12	1
Acetone	<500		500	ug/L			07/31/24 00:12	1
Benzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromobenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromochloromethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromodichloromethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromoethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromoform	<0.50		0.50	ug/L			07/31/24 00:12	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/31/24 00:12	1
Carbon disulfide	<0.50		0.50	ug/L			07/31/24 00:12	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/31/24 00:12	1
Chlorobenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Chloroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/31/24 00:12	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/31/24 00:12	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:12	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:12	1
Dibromomethane	<0.50		0.50	ug/L			07/31/24 00:12	1

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Dichloromethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Diisopropyl ether	<3.0		3.0	ug/L			07/31/24 00:12	1
Ethylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/31/24 00:12	1
Isopropylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
m,p-Xylenes	<0.50		0.50	ug/L			07/31/24 00:12	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/31/24 00:12	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/31/24 00:12	1
Naphthalene	<0.50		0.50	ug/L			07/31/24 00:12	1
n-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
N-Propylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/31/24 00:12	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/31/24 00:12	1
o-Xylene	<0.50		0.50	ug/L			07/31/24 00:12	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/31/24 00:12	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/31/24 00:12	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/31/24 00:12	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Styrene	<0.50		0.50	ug/L			07/31/24 00:12	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/31/24 00:12	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/31/24 00:12	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:12	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/31/24 00:12	1
Toluene	<0.50		0.50	ug/L			07/31/24 00:12	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:12	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:12	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/31/24 00:12	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/31/24 00:12	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/31/24 00:12	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/31/24 00:12	1
Xylenes, Total	<0.50		0.50	ug/L			07/31/24 00:12	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/31/24 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		07/31/24 00:12	1
4-Bromofluorobenzene (Surr)	101		70 - 130		07/31/24 00:12	1
Toluene-d8 (Surr)	98		70 - 130		07/31/24 00:12	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		07/25/24 13:15	07/26/24 12:34	1
2,4'-DDE	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
2,4'-DDT	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
4,4'-DDD	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
4,4'-DDE	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Acenaphthene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Acenaphthylene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Acetochlor	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Alachlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
alpha-BHC	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
alpha-Chlordane	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Anthracene	<0.019	F1	0.019	ug/L		07/25/24 13:15	07/26/24 12:34	1
Atrazine	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Benz(a)anthracene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Benzo[a]pyrene	<0.019		0.019	ug/L		07/25/24 13:15	07/26/24 12:34	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		07/25/24 13:15	07/26/24 12:34	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		07/25/24 13:15	07/26/24 12:34	1
beta-BHC	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		07/25/24 13:15	07/26/24 12:34	1
Aldrin	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Bromacil	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Butachlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Butylbenzylphthalate	<0.48		0.48	ug/L		07/25/24 13:15	07/26/24 12:34	1
Chlorobenzilate	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Chloroneb	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Chlorpyrifos	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Chrysene	<0.019		0.019	ug/L		07/25/24 13:15	07/26/24 12:34	1
delta-BHC	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		07/25/24 13:15	07/26/24 12:34	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Dieldrin	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Diethylphthalate	<0.48		0.48	ug/L		07/25/24 13:15	07/26/24 12:34	1
Dimethylphthalate	<0.48		0.48	ug/L		07/25/24 13:15	07/26/24 12:34	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		07/25/24 13:15	07/26/24 12:34	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Endosulfan sulfate	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Endrin	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Endrin aldehyde	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
EPTC	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Fluoranthene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Fluorene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
gamma-BHC (Lindane)	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
gamma-Chlordane	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Heptachlor	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Hexachlorobenzene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Malathion	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Methoxychlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Metolachlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Molinate	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Naphthalene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Parathion	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Phenanthrene	<0.039		0.039	ug/L		07/25/24 13:15	07/26/24 12:34	1
Propachlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Pyrene	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Simazine	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Terbacil	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Terbutylazine	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Thiobencarb	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		07/25/24 13:15	07/26/24 12:34	1
trans-Nonachlor	<0.048		0.048	ug/L		07/25/24 13:15	07/26/24 12:34	1
Trifluralin	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
1-Methylnaphthalene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1
2-Methylnaphthalene	<0.097		0.097	ug/L		07/25/24 13:15	07/26/24 12:34	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/25/24 13:15	07/26/24 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	07/25/24 13:15	07/26/24 12:34	1
Perylene-d12	89		70 - 130	07/25/24 13:15	07/26/24 12:34	1
Triphenylphosphate	82		70 - 130	07/25/24 13:15	07/26/24 12:34	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			08/01/24 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		38 - 134		08/01/24 21:12	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		07/25/24 15:00	07/26/24 06:46	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		07/25/24 15:00	07/26/24 06:46	1
1,2-Dibromoethane	<0.010		0.010	ug/L		07/25/24 15:00	07/26/24 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	97		60 - 140	07/25/24 15:00	07/26/24 06:46	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		07/25/24 12:50	07/26/24 02:00	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1016	<0.070		0.070	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1221	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1242	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1248	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1254	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1
PCB-1260	<0.070		0.070	ug/L		07/25/24 12:50	07/26/24 02:00	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		07/25/24 12:50	07/26/24 02:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		70 - 130	07/25/24 12:50	07/26/24 02:00	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		07/29/24 16:16	08/01/24 12:33	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		07/29/24 16:16	08/01/24 12:33	1
C8-C18	<26		26	ug/L		07/29/24 16:16	08/01/24 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 130	07/29/24 16:16	08/01/24 12:33	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	360		5.0	ug/L			07/27/24 04:56	1
Chloride	100		2.5	mg/L			07/25/24 01:44	5
Nitrate as N	0.87		0.25	mg/L			07/25/24 01:44	5
Nitrite as N	<0.25		0.25	mg/L			07/25/24 01:44	5
Sulfate	17		1.3	mg/L			07/25/24 01:44	5

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			07/25/24 20:20	1
Magnesium	18		0.10	mg/L			07/25/24 20:20	1
Potassium	2.5		1.0	mg/L			07/25/24 20:20	1
Sodium	38		1.0	mg/L			07/25/24 20:20	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			07/25/24 19:34	1
Arsenic	<1.0		1.0	ug/L			07/25/24 19:34	1
Beryllium	<1.0		1.0	ug/L			07/25/24 19:34	1
Cadmium	<0.50		0.50	ug/L			07/25/24 19:34	1
Chromium	2.3		1.0	ug/L			07/25/24 19:34	1
Copper	<2.0		2.0	ug/L			07/25/24 19:34	1
Lead	<0.50		0.50	ug/L			07/25/24 19:34	1
Nickel	<5.0		5.0	ug/L			07/25/24 19:34	1
Selenium	<5.0		5.0	ug/L			07/25/24 19:34	1
Silver	<0.50 ^2		0.50	ug/L			07/25/24 19:34	1
Thallium	<1.0		1.0	ug/L			07/25/24 19:34	1
Zinc	<20		20	ug/L			07/25/24 19:34	1

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		07/31/24 11:38	07/31/24 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	57		2.0	mg/L			07/29/24 17:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	57		2.0	mg/L			07/29/24 17:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.0		2.0	mg/L			07/29/24 17:23	1
Specific Conductance (SM 2510B)	490		2.0	umhos/cm			07/29/24 17:23	1
Total Dissolved Solids (SM 2540C)	300		20	mg/L			07/25/24 14:13	1
Fluoride (SM 4500 F C)	0.053		0.050	mg/L			07/26/24 15:33	1
pH (SM 4500 H+ B)	7.9	HF		SU			07/29/24 17:23	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			07/29/24 10:42	1

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

Method: EPA-DW 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.50		0.50	ug/L			07/31/24 00:35	1

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			07/25/24 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130		07/25/24 23:05	1
4-Bromofluorobenzene (Surr)	97		70 - 130		07/25/24 23:05	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		07/25/24 23:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:35	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/31/24 00:35	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/31/24 00:35	1

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<5.0		5.0	ug/L			07/31/24 00:35	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/31/24 00:35	1
Acetone	<500		500	ug/L			07/31/24 00:35	1
Benzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromobenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromochloromethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromodichloromethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromoethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromoform	<0.50		0.50	ug/L			07/31/24 00:35	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/31/24 00:35	1
Carbon disulfide	<0.50		0.50	ug/L			07/31/24 00:35	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/31/24 00:35	1
Chlorobenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Chloroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/31/24 00:35	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/31/24 00:35	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:35	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:35	1
Dibromomethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Dichloromethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Diisopropyl ether	<3.0		3.0	ug/L			07/31/24 00:35	1
Ethylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/31/24 00:35	1
Isopropylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
m,p-Xylenes	<0.50		0.50	ug/L			07/31/24 00:35	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/31/24 00:35	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/31/24 00:35	1
Naphthalene	<0.50		0.50	ug/L			07/31/24 00:35	1
n-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
N-Propylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/31/24 00:35	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/31/24 00:35	1
o-Xylene	<0.50		0.50	ug/L			07/31/24 00:35	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/31/24 00:35	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/31/24 00:35	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/31/24 00:35	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Styrene	<0.50		0.50	ug/L			07/31/24 00:35	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/31/24 00:35	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/31/24 00:35	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/31/24 00:35	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/31/24 00:35	1
Toluene	<0.50		0.50	ug/L			07/31/24 00:35	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/31/24 00:35	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/31/24 00:35	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/31/24 00:35	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/31/24 00:35	1

Client Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/31/24 00:35	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/31/24 00:35	1
Xylenes, Total	<0.50		0.50	ug/L			07/31/24 00:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.76	T J	ug/L		2.38	N/A		07/31/24 00:35	1
Unknown	17	T J	ug/L		9.17	N/A		07/31/24 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		07/31/24 00:35	1
4-Bromofluorobenzene (Surr)	104		70 - 130		07/31/24 00:35	1
Toluene-d8 (Surr)	99		70 - 130		07/31/24 00:35	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			08/01/24 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		38 - 134		08/01/24 23:08	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	<0.021		0.021	ug/L		07/25/24 15:00	07/26/24 07:56	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		07/25/24 15:00	07/26/24 07:56	1
1,2-Dibromoethane	<0.010		0.010	ug/L		07/25/24 15:00	07/26/24 07:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	103		60 - 140	07/25/24 15:00	07/26/24 07:56	1

Action Limit Summary

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

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
Trihalomethanes, Total	<0.50		ug/L		80		524.2	Total/NA
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200		524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,1-Dichloroethylene	<0.50		ug/L	7.000	7		524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000			524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70		524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5		524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5		524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5		524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100		524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70		524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5		524.2	Total/NA
Ethylbenzene	<0.50		ug/L	700.0	700		524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600		524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75		524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100		524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000		524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100		524.2	Total/NA
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2		524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000		524.2	Total/NA
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
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
Nitrate as N	0.87		mg/L		10		300.0	Total/NA
Nitrite as N	<0.25		mg/L		1		300.0	Total/NA
Sulfate	17		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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2 (Continued)

Lab Sample ID: 380-105515-1

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	EPAMCL	EPAMCL	Method	Prep Type
				Limit	Limit	S		
Beryllium	<1.0		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	2.3		ug/L		100		200.8	Total/NA
Copper	<2.0		ug/L			1000	200.8	Total/NA
Lead	<0.50		ug/L		15.000		200.8	Total/NA
Selenium	<5.0		ug/L		50		200.8	Total/NA
Silver	<0.50	^2	ug/L			100	200.8	Total/NA
Thallium	<1.0		ug/L		2		200.8	Total/NA
Zinc	<20		ug/L			5000	200.8	Total/NA
Mercury	<0.10		ug/L		2		245.1	Total/NA
Total Dissolved Solids	300		mg/L			500	SM 2540C	Total/NA
Fluoride	0.053		mg/L		4	2	SM 4500 F C	Total/NA
pH	7.9	HF	SU			6.5	SM 4500 H+ B	Total/NA

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

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	EPAMCL	RL	Method	Prep Type
				Limit	Limit			
Trihalomethanes, Total	<0.50		ug/L		80	0.50	524.2	Total/NA
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200	0.50	524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,1-Dichloroethylene	<0.50		ug/L	7.000	7	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000		0.50	524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Ethylbenzene	<0.50		ug/L	700.0	700	0.50	524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600	0.50	524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75	0.50	524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000	0.50	524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2	0.30	524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.021		ug/L	0.6000		0.021	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

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Surrogate Summary

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

Job ID: 380-105515-1
SDG: Quarterly

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)
380-105515-1	Aiea Wells P2	96	94	102
380-105515-2	TRAVEL BLANK	95	97	105
LCS 380-100809/2	Lab Control Sample	97	92	101
LCS 380-100809/3	Lab Control Sample Dup	98	96	100
MB 380-100809/5	Method Blank	99	92	102

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 380-100809/4	Lab Control Sample	98	94	102

Surrogate Legend
 TOL = Toluene-d8 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DCA = 1,2-Dichloroethane-d4 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
380-105515-1	Aiea Wells P2	104	101	98
380-105515-2	TRAVEL BLANK	103	104	99
LCS 380-101355/5	Lab Control Sample	108	101	95
LCS 380-101355/6	Lab Control Sample Dup	107	97	95
MB 380-101355/8	Method Blank	108	93	99
MRL 380-101355/3	Lab Control Sample	107	93	93
MRL 380-101355/4	Lab Control Sample	86	99	95

Surrogate Legend
 DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-105515-1	Aiea Wells P2	99	89	82
380-105515-1 DU	Aiea Wells P2	101	99	101
380-105515-1 MS	Aiea Wells P2	99	101	100

Surrogate Summary

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

Job ID: 380-105515-1
SDG: Quarterly

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

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 380-100689/23-A	Lab Control Sample	99	95	90
MB 380-100689/21-A	Method Blank	101	90	85
MRL 380-100689/22-A	Lab Control Sample	101	90	88

Surrogate Legend

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

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)
380-105515-1	Aiea Wells P2	90
380-105515-2	TRAVEL BLANK	91
380-105582-C-1 MS	Matrix Spike	92
380-105582-C-1 MSD	Matrix Spike Duplicate	93
LCS 570-466384/1008	Lab Control Sample	87
LCSD 570-466384/9	Lab Control Sample Dup	95
MB 570-466384/10	Method Blank	88
MRL 570-466384/1003	Lab Control Sample	89

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DBPP1 (60-140)
380-103973-BY-1-A MS	Matrix Spike	90
380-103973-CA-1-A DU	Duplicate	90
380-105515-1	Aiea Wells P2	97
380-105515-2	TRAVEL BLANK	103
LCS 380-100691/29-A	Lab Control Sample	97
MBL 380-100691/4-A	Method Blank	99
MRL 380-100691/2-A	Lab Control Sample	96
MRL 380-100691/3-A	Lab Control Sample	98

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		TCX1 (70-130)
380-104825-BV-1-A MS	Matrix Spike	116
380-104825-BW-1-A MS	Matrix Spike	109

Surrogate Summary

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

Job ID: 380-105515-1
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)
380-104825-BX-1-A MS	Matrix Spike	100
380-104835-BW-1-A MS	Matrix Spike	102
380-104835-BY-1-A MS	Matrix Spike	105
380-105515-1	Aiea Wells P2	102
LCS 380-100683/45-A	Lab Control Sample	109
LCS 380-100683/8-A	Lab Control Sample	95
LCSD 380-100683/46-A	Lab Control Sample Dup	102
MB 380-100683/14-A	Method Blank	122
MRL 380-100683/10-A	Lab Control Sample	119
MRL 380-100683/11-A	Lab Control Sample	101
MRL 380-100683/12-A	Lab Control Sample	120
MRL 380-100683/13-A	Lab Control Sample	96

Surrogate Legend

TCX = Tetrachloro-m-xylene

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)
380-105515-1	Aiea Wells P2	106
380-105582-B-1-A MS	Matrix Spike	109
380-105582-B-1-B MSD	Matrix Spike Duplicate	115
LCS 570-465129/2-A	Lab Control Sample	114
LCSD 570-465129/3-A	Lab Control Sample Dup	114
MB 570-465129/1-A	Method Blank	111
MRL 570-465129/4-A	Lab Control Sample	107

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MB 380-101355/8
Matrix: Water
Analysis Batch: 101355

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/30/24 17:46	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/30/24 17:46	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/30/24 17:46	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/30/24 17:46	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/30/24 17:46	1
Acetone	<500		500	ug/L			07/30/24 17:46	1
Benzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromobenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromochloromethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromodichloromethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromoethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromoform	<0.50		0.50	ug/L			07/30/24 17:46	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/30/24 17:46	1
Carbon disulfide	<0.50		0.50	ug/L			07/30/24 17:46	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/30/24 17:46	1
Chlorobenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Chloroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/30/24 17:46	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/30/24 17:46	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/30/24 17:46	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/30/24 17:46	1
Dibromomethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Dichloromethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Diisopropyl ether	<3.0		3.0	ug/L			07/30/24 17:46	1
Ethylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/30/24 17:46	1
Isopropylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
m,p-Xylenes	<0.50		0.50	ug/L			07/30/24 17:46	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/30/24 17:46	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/30/24 17:46	1
Naphthalene	<0.50		0.50	ug/L			07/30/24 17:46	1
n-Butylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MB 380-101355/8
Matrix: Water
Analysis Batch: 101355

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/30/24 17:46	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/30/24 17:46	1
o-Xylene	<0.50		0.50	ug/L			07/30/24 17:46	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/30/24 17:46	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/30/24 17:46	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/30/24 17:46	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Styrene	<0.50		0.50	ug/L			07/30/24 17:46	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/30/24 17:46	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/30/24 17:46	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/30/24 17:46	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/30/24 17:46	1
Toluene	<0.50		0.50	ug/L			07/30/24 17:46	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/30/24 17:46	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/30/24 17:46	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/30/24 17:46	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/30/24 17:46	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/30/24 17:46	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/30/24 17:46	1
Xylenes, Total	<0.50		0.50	ug/L			07/30/24 17:46	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/30/24 17:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		07/30/24 17:46	1
4-Bromofluorobenzene (Surr)	93		70 - 130		07/30/24 17:46	1
Toluene-d8 (Surr)	99		70 - 130		07/30/24 17:46	1

Lab Sample ID: LCS 380-101355/5
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	5.00	4.33		ug/L		87	70 - 130
1,1,1-Trichloroethane	5.00	4.52		ug/L		90	70 - 130
1,1,1,2,2-Tetrachloroethane	5.00	4.86		ug/L		97	70 - 130
1,1,2-Trichloroethane	5.00	4.26		ug/L		85	70 - 130
1,1-Dichloroethylene	5.00	4.01		ug/L		80	70 - 130
1,1-Dichloroethane	5.00	3.98		ug/L		80	70 - 130
1,1-Dichloropropene	5.00	4.78		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	5.00	5.36		ug/L		107	70 - 130
1,2,3-Trichloropropane	5.00	5.19		ug/L		104	70 - 130
1,2,4-Trichlorobenzene	5.00	5.14		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	5.00	4.74		ug/L		95	70 - 130
1,2-Dichloroethane	5.00	5.12		ug/L		102	70 - 130
1,2-Dichloropropane	5.00	4.64		ug/L		93	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-101355/5
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	5.00	4.47		ug/L		89	70 - 130
1,3-Dichloropropane	5.00	4.39		ug/L		88	70 - 130
1,3-Dichloropropene, Total	10.0	10.2		ug/L		102	70 - 130
2,2-Dichloropropane	5.00	4.14		ug/L		83	70 - 130
2-Butanone (MEK)	50.0	43.5		ug/L		87	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	60.2		ug/L		120	70 - 130
Acetone	50.0	49.2	J	ug/L		98	70 - 130
Benzene	5.00	5.08		ug/L		102	70 - 130
Bromobenzene	5.00	4.81		ug/L		96	70 - 130
Bromochloromethane	5.00	4.14		ug/L		83	70 - 130
Bromodichloromethane	5.00	4.96		ug/L		99	70 - 130
Bromoethane	5.00	4.51		ug/L		90	70 - 130
Bromoform	5.00	5.14		ug/L		103	70 - 130
Bromomethane (Methyl Bromide)	5.00	4.32		ug/L		86	70 - 130
Carbon disulfide	5.00	4.31		ug/L		86	70 - 130
Carbon tetrachloride	5.00	4.45		ug/L		89	70 - 130
Chlorobenzene	5.00	4.23		ug/L		85	70 - 130
Chlorodibromomethane	5.00	4.40		ug/L		88	70 - 130
cis-1,3-Dichloropropene	5.00	5.31		ug/L		106	70 - 130
Dichloromethane	5.00	4.01		ug/L		80	70 - 130
Diisopropyl ether	5.00	4.06		ug/L		81	70 - 130
Ethylbenzene	5.00	4.27		ug/L		85	70 - 130
Hexachlorobutadiene	5.00	4.33		ug/L		87	70 - 130
Isopropylbenzene	5.00	4.92		ug/L		98	70 - 130
m,p-Xylenes	10.0	8.34		ug/L		83	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	4.71		ug/L		94	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.43		ug/L		89	70 - 130
Naphthalene	5.00	5.58		ug/L		112	70 - 130
n-Butylbenzene	5.00	5.02		ug/L		100	70 - 130
N-Propylbenzene	5.00	4.21		ug/L		84	70 - 130
o-Chlorotoluene	5.00	4.99		ug/L		100	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	4.97		ug/L		99	70 - 130
o-Xylene	5.00	4.40		ug/L		88	70 - 130
p-Chlorotoluene	5.00	4.27		ug/L		85	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	4.94		ug/L		99	70 - 130
p-Isopropyltoluene	5.00	4.64		ug/L		93	70 - 130
sec-Butylbenzene	5.00	4.53		ug/L		91	70 - 130
Styrene	5.00	4.46		ug/L		89	70 - 130
Tert-amyl methyl ether	5.00	5.25		ug/L		105	70 - 130
Tert-butyl ethyl ether	5.00	4.31		ug/L		86	70 - 130
tert-Butylbenzene	5.00	4.94		ug/L		99	70 - 130
Tetrachloroethene (PCE)	5.00	4.22		ug/L		84	70 - 130
Toluene	5.00	4.37		ug/L		87	70 - 130
trans-1,2-Dichloroethylene	5.00	3.93		ug/L		79	70 - 130
trans-1,3-Dichloropropene	5.00	4.89		ug/L		98	70 - 130
Trichloroethylene (TCE)	5.00	4.30		ug/L		86	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.51		ug/L		90	70 - 130
Trichlorotrifluoroethane	5.00	4.10		ug/L		82	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-101355/5
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl Chloride (VC)	5.00	4.05		ug/L		81	70 - 130
Xylenes, Total	15.0	12.7		ug/L		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Lab Sample ID: LCSD 380-101355/6
Matrix: Water
Analysis Batch: 101355

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
1,1,1,2-Tetrachloroethane	5.00	4.43		ug/L		89	70 - 130	2	20
1,1,1-Trichloroethane	5.00	4.56		ug/L		91	70 - 130	1	20
1,1,2,2-Tetrachloroethane	5.00	4.79		ug/L		96	70 - 130	1	20
1,1,2-Trichloroethane	5.00	4.58		ug/L		92	70 - 130	7	20
1,1-Dichlorethylene	5.00	4.30		ug/L		86	70 - 130	7	20
1,1-Dichloroethane	5.00	4.12		ug/L		82	70 - 130	3	20
1,1-Dichloropropene	5.00	4.88		ug/L		98	70 - 130	2	20
1,2,3-Trichlorobenzene	5.00	5.38		ug/L		108	70 - 130	0	20
1,2,3-Trichloropropane	5.00	5.04		ug/L		101	70 - 130	3	20
1,2,4-Trichlorobenzene	5.00	5.26		ug/L		105	70 - 130	2	20
1,2,4-Trimethylbenzene	5.00	4.71		ug/L		94	70 - 130	1	20
1,2-Dichloroethane	5.00	5.02		ug/L		100	70 - 130	2	20
1,2-Dichloropropane	5.00	4.92		ug/L		98	70 - 130	6	20
1,3,5-Trimethylbenzene	5.00	4.44		ug/L		89	70 - 130	1	20
1,3-Dichloropropane	5.00	4.53		ug/L		91	70 - 130	3	20
1,3-Dichloropropene, Total	10.0	10.4		ug/L		104	70 - 130	2	20
2,2-Dichloropropane	5.00	4.26		ug/L		85	70 - 130	3	20
2-Butanone (MEK)	50.0	42.6		ug/L		85	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	50.0	59.4		ug/L		119	70 - 130	1	20
Acetone	50.0	47.7	J	ug/L		95	70 - 130	3	20
Benzene	5.00	5.20		ug/L		104	70 - 130	2	20
Bromobenzene	5.00	4.74		ug/L		95	70 - 130	1	20
Bromochloromethane	5.00	4.18		ug/L		84	70 - 130	1	20
Bromodichloromethane	5.00	5.00		ug/L		100	70 - 130	1	20
Bromoethane	5.00	4.67		ug/L		93	70 - 130	4	20
Bromoform	5.00	4.94		ug/L		99	70 - 130	4	20
Bromomethane (Methyl Bromide)	5.00	4.28		ug/L		86	70 - 130	1	20
Carbon disulfide	5.00	4.54		ug/L		91	70 - 130	5	20
Carbon tetrachloride	5.00	4.69		ug/L		94	70 - 130	5	20
Chlorobenzene	5.00	4.35		ug/L		87	70 - 130	3	20
Chlorodibromomethane	5.00	4.54		ug/L		91	70 - 130	3	20
cis-1,3-Dichloropropene	5.00	5.46		ug/L		109	70 - 130	3	20
Dichloromethane	5.00	4.10		ug/L		82	70 - 130	2	20
Diisopropyl ether	5.00	4.24		ug/L		85	70 - 130	4	20
Ethylbenzene	5.00	4.49		ug/L		90	70 - 130	5	20

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-101355/6
Matrix: Water
Analysis Batch: 101355

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
Hexachlorobutadiene	5.00	4.50		ug/L		90	70 - 130	4	20
Isopropylbenzene	5.00	4.98		ug/L		100	70 - 130	1	20
m,p-Xylenes	10.0	8.63		ug/L		86	70 - 130	3	20
m-Dichlorobenzene (1,3-DCB)	5.00	4.57		ug/L		91	70 - 130	3	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.48		ug/L		90	70 - 130	1	20
Naphthalene	5.00	5.59		ug/L		112	70 - 130	0	20
n-Butylbenzene	5.00	5.11		ug/L		102	70 - 130	2	20
N-Propylbenzene	5.00	4.38		ug/L		88	70 - 130	4	20
o-Chlorotoluene	5.00	5.04		ug/L		101	70 - 130	1	20
o-Dichlorobenzene (1,2-DCB)	5.00	5.10		ug/L		102	70 - 130	3	20
o-Xylene	5.00	4.54		ug/L		91	70 - 130	3	20
p-Chlorotoluene	5.00	4.29		ug/L		86	70 - 130	0	20
p-Dichlorobenzene (1,4-DCB)	5.00	4.52		ug/L		90	70 - 130	9	20
p-Isopropyltoluene	5.00	4.54		ug/L		91	70 - 130	2	20
sec-Butylbenzene	5.00	4.49		ug/L		90	70 - 130	1	20
Styrene	5.00	4.61		ug/L		92	70 - 130	3	20
Tert-amyl methyl ether	5.00	5.32		ug/L		106	70 - 130	1	20
Tert-butyl ethyl ether	5.00	4.27		ug/L		85	70 - 130	1	20
tert-Butylbenzene	5.00	4.87		ug/L		97	70 - 130	1	20
Tetrachloroethene (PCE)	5.00	4.37		ug/L		87	70 - 130	4	20
Toluene	5.00	4.67		ug/L		93	70 - 130	7	20
trans-1,2-Dichloroethylene	5.00	4.06		ug/L		81	70 - 130	3	20
trans-1,3-Dichloropropene	5.00	4.95		ug/L		99	70 - 130	1	20
Trichloroethylene (TCE)	5.00	4.39		ug/L		88	70 - 130	2	20
Trichlorofluoromethane (Freon 11)	5.00	4.76		ug/L		95	70 - 130	5	20
Trichlorotrifluoroethane	5.00	4.19		ug/L		84	70 - 130	2	20
Vinyl Chloride (VC)	5.00	4.22		ug/L		84	70 - 130	4	20
Xylenes, Total	15.0	13.2		ug/L		88	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Lab Sample ID: MRL 380-101355/3
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
m,p-Xylenes	0.500	0.422	J	ug/L		84	50 - 150
Vinyl Chloride (VC)	0.250	0.215	J	ug/L		86	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130
Toluene-d8 (Surr)	93		70 - 130

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-101355/4
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	0.409	J	ug/L		82	50 - 150
1,1,1-Trichloroethane	0.500	0.410	J	ug/L		82	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.493	J	ug/L		99	50 - 150
1,1,2-Trichloroethane	0.500	0.497	J	ug/L		99	50 - 150
1,1-Dichlorethylene	0.500	0.359	J	ug/L		72	50 - 150
1,1-Dichloroethane	0.500	0.380	J	ug/L		76	50 - 150
1,1-Dichloropropene	0.500	0.357	J	ug/L		71	50 - 150
1,2,3-Trichlorobenzene	0.500	0.545		ug/L		109	50 - 150
1,2,3-Trichloropropane	0.500	0.525		ug/L		105	50 - 150
1,2,4-Trichlorobenzene	0.500	0.503		ug/L		101	50 - 150
1,2,4-Trimethylbenzene	0.500	0.455	J	ug/L		91	50 - 150
1,2-Dichloroethane	0.500	0.416	J	ug/L		83	50 - 150
1,2-Dichloropropane	0.500	0.507		ug/L		101	50 - 150
1,3,5-Trimethylbenzene	0.500	0.433	J	ug/L		87	50 - 150
1,3-Dichloropropane	0.500	0.427	J	ug/L		85	50 - 150
1,3-Dichloropropene, Total	1.00	0.848		ug/L		85	50 - 150
2,2-Dichloropropane	0.500	0.398	J	ug/L		80	50 - 150
2-Butanone (MEK)	5.00	4.16	J	ug/L		83	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	6.09		ug/L		122	50 - 150
Acetone	5.00	<4.0		ug/L		59	50 - 150
Benzene	0.500	0.404	J	ug/L		81	50 - 150
Bromobenzene	0.500	0.438	J	ug/L		88	50 - 150
Bromochloromethane	0.500	0.401	J	ug/L		80	50 - 150
Bromodichloromethane	0.500	0.449	J	ug/L		90	50 - 150
Bromoethane	0.500	0.399	J	ug/L		80	50 - 150
Bromoform	0.500	0.386	J	ug/L		77	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.462	J	ug/L		92	50 - 150
Carbon disulfide	0.500	0.360	J	ug/L		72	50 - 150
Carbon tetrachloride	0.500	0.364	J	ug/L		73	50 - 150
Chlorobenzene	0.500	0.425	J	ug/L		85	50 - 150
Chlorodibromomethane	0.500	0.414	J	ug/L		83	50 - 150
cis-1,3-Dichloropropene	0.500	0.464	J	ug/L		93	50 - 150
Dichloromethane	0.500	0.416	J	ug/L		83	50 - 150
Diisopropyl ether	0.500	0.372	J	ug/L		74	50 - 150
Ethylbenzene	0.500	0.423	J	ug/L		85	50 - 150
Hexachlorobutadiene	0.500	0.427	J	ug/L		85	50 - 150
Isopropylbenzene	0.500	0.470	J	ug/L		94	50 - 150
m,p-Xylenes	1.00	0.821		ug/L		82	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.449	J	ug/L		90	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.420	J	ug/L		84	50 - 150
Naphthalene	0.500	0.604		ug/L		121	50 - 150
n-Butylbenzene	0.500	0.477	J	ug/L		95	50 - 150
N-Propylbenzene	0.500	0.410	J	ug/L		82	50 - 150
o-Chlorotoluene	0.500	0.472	J	ug/L		94	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.485	J	ug/L		97	50 - 150
o-Xylene	0.500	0.440	J	ug/L		88	50 - 150
p-Chlorotoluene	0.500	0.416	J	ug/L		83	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.459	J	ug/L		92	50 - 150

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-101355/4
Matrix: Water
Analysis Batch: 101355

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	0.500	0.450	J	ug/L		90	50 - 150
sec-Butylbenzene	0.500	0.440	J	ug/L		88	50 - 150
Styrene	0.500	0.419	J	ug/L		84	50 - 150
Tert-amyl methyl ether	0.500	0.502	J	ug/L		100	50 - 150
Tert-butyl ethyl ether	0.500	0.406	J	ug/L		81	50 - 150
tert-Butylbenzene	0.500	0.454	J	ug/L		91	50 - 150
Tetrachloroethene (PCE)	0.500	0.383	J	ug/L		77	50 - 150
Toluene	0.500	0.433	J	ug/L		87	50 - 150
trans-1,2-Dichloroethylene	0.500	0.446	J	ug/L		89	50 - 150
trans-1,3-Dichloropropene	0.500	0.384	J	ug/L		77	50 - 150
Trichloroethylene (TCE)	0.500	0.428	J	ug/L		86	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.372	J	ug/L		74	50 - 150
Trichlorotrifluoroethane	0.500	0.445	J	ug/L		89	50 - 150
Vinyl Chloride (VC)	0.500	0.382		ug/L		76	50 - 150
Xylenes, Total	1.50	1.26		ug/L		84	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	95		70 - 130

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

Lab Sample ID: MB 380-100809/5
Matrix: Water
Analysis Batch: 100809

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			07/25/24 21:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		07/25/24 21:34	1
4-Bromofluorobenzene (Surr)	92		70 - 130		07/25/24 21:34	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		07/25/24 21:34	1

Lab Sample ID: LCS 380-100809/2
Matrix: Water
Analysis Batch: 100809

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	5.20		ug/L		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-100809/3
Matrix: Water
Analysis Batch: 100809

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	5.77		ug/L		115	70 - 130	10	20
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
Toluene-d8 (Surr)	98		70 - 130						
4-Bromofluorobenzene (Surr)	96		70 - 130						
1,2-Dichloroethane-d4 (Surr)	100		70 - 130						

Lab Sample ID: MRL 380-100809/4
Matrix: Water
Analysis Batch: 100809

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	2.33		ug/L		116	50 - 150		
MRL MRL									
Surrogate	%Recovery	Qualifier	Limits						
Toluene-d8 (Surr)	98		50 - 150						
4-Bromofluorobenzene (Surr)	94		50 - 150						
1,2-Dichloroethane-d4 (Surr)	102		50 - 150						

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

Lab Sample ID: MB 380-100689/21-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100689

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
2,4'-DDE	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
2,4'-DDT	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
4,4'-DDD	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
4,4'-DDE	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
4,4'-DDT	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Acenaphthene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Acenaphthylene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Acetochlor	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Alachlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
alpha-BHC	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
alpha-Chlordane	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Anthracene	<0.020		0.020	ug/L		07/25/24 12:30	07/26/24 12:14	1
Atrazine	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Benz(a)anthracene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Benzo[a]pyrene	<0.020		0.020	ug/L		07/25/24 12:30	07/26/24 12:14	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		07/25/24 12:30	07/26/24 12:14	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		07/25/24 12:30	07/26/24 12:14	1
beta-BHC	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1

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QC Sample Results

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

Job ID: 380-105515-1
 SDG: Quarterly

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

Lab Sample ID: MB 380-100689/21-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100689

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		07/25/24 12:30	07/26/24 12:14	1
Aldrin	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Bromacil	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Butachlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Butylbenzylphthalate	<0.49		0.49	ug/L		07/25/24 12:30	07/26/24 12:14	1
Chlorobenzilate	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Chloroneb	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Chlorpyrifos	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Chrysene	<0.020		0.020	ug/L		07/25/24 12:30	07/26/24 12:14	1
delta-BHC	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		07/25/24 12:30	07/26/24 12:14	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Dieldrin	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Diethylphthalate	<0.49		0.49	ug/L		07/25/24 12:30	07/26/24 12:14	1
Dimethylphthalate	<0.49		0.49	ug/L		07/25/24 12:30	07/26/24 12:14	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		07/25/24 12:30	07/26/24 12:14	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Endosulfan sulfate	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Endrin	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Endrin aldehyde	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
EPTC	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Fluoranthene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Fluorene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
gamma-BHC (Lindane)	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
gamma-Chlordane	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Heptachlor	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Hexachlorobenzene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Isophorone	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Malathion	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Methoxychlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Metolachlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Molinate	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Naphthalene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Parathion	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Phenanthrene	<0.039		0.039	ug/L		07/25/24 12:30	07/26/24 12:14	1
Propachlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Pyrene	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Simazine	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Terbacil	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Terbutylazine	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
Thiobencarb	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MB 380-100689/21-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100689

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		07/25/24 12:30	07/26/24 12:14	1
trans-Nonachlor	<0.049		0.049	ug/L		07/25/24 12:30	07/26/24 12:14	1
Trifluralin	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
1-Methylnaphthalene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1
2-Methylnaphthalene	<0.098		0.098	ug/L		07/25/24 12:30	07/26/24 12:14	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.65	T J N	ug/L		2.28	124-18-5	07/25/24 12:30	07/26/24 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	07/25/24 12:30	07/26/24 12:14	1
Perylene-d12	90		70 - 130	07/25/24 12:30	07/26/24 12:14	1
Triphenylphosphate	85		70 - 130	07/25/24 12:30	07/26/24 12:14	1

Lab Sample ID: LCS 380-100689/23-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4'-DDD	1.96	1.85		ug/L		94	70 - 130
2,4'-DDE	1.96	1.67		ug/L		85	70 - 130
2,4'-DDT	1.96	1.85		ug/L		95	70 - 130
2,4-Dinitrotoluene	1.96	1.68		ug/L		86	70 - 130
2,6-Dinitrotoluene	1.96	1.74		ug/L		89	70 - 130
4,4'-DDD	1.96	1.93		ug/L		98	70 - 130
4,4'-DDE	1.96	1.74		ug/L		89	70 - 130
4,4'-DDT	1.96	1.73		ug/L		88	70 - 130
Acenaphthene	1.96	1.87		ug/L		95	70 - 130
Acenaphthylene	1.96	1.72		ug/L		88	70 - 130
Acetochlor	1.96	1.99		ug/L		101	70 - 130
Alachlor	1.96	1.93		ug/L		98	70 - 130
alpha-BHC	1.96	1.83		ug/L		93	70 - 130
alpha-Chlordane	1.96	1.88		ug/L		96	70 - 130
Anthracene	1.96	1.57		ug/L		80	70 - 130
Atrazine	1.96	1.86		ug/L		95	70 - 130
Benz(a)anthracene	1.96	1.71		ug/L		87	70 - 130
Benzo[a]pyrene	1.96	1.87		ug/L		95	70 - 130
Benzo[b]fluoranthene	1.96	2.00		ug/L		102	70 - 130
Benzo[g,h,i]perylene	1.96	2.06		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.96	2.00		ug/L		102	70 - 130
beta-BHC	1.96	1.81		ug/L		92	70 - 130
Bis(2-ethylhexyl) phthalate	1.96	1.86		ug/L		95	70 - 130
Aldrin	1.96	1.66		ug/L		85	70 - 130
Bromacil	1.96	1.81		ug/L		93	70 - 130
Butachlor	1.96	1.90		ug/L		97	70 - 130
Butylbenzylphthalate	1.96	1.94		ug/L		99	70 - 130
Chlorobenzilate	1.96	1.79		ug/L		91	70 - 130
Chloroneb	1.96	1.87		ug/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-100689/23-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorothalonil (Draconil, Bravo)	1.96	1.94		ug/L		99	70 - 130
Chlorpyrifos	1.96	1.92		ug/L		98	70 - 130
Chrysene	1.96	2.02		ug/L		103	70 - 130
delta-BHC	1.96	1.93		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.96	1.64		ug/L		84	70 - 130
Dibenz(a,h)anthracene	1.96	1.98		ug/L		101	70 - 130
Diclorvos (DDVP)	1.96	1.90		ug/L		97	70 - 130
Dieldrin	1.96	1.88		ug/L		96	70 - 130
Diethylphthalate	1.96	1.88		ug/L		96	70 - 130
Dimethylphthalate	1.96	2.03		ug/L		103	70 - 130
Di-n-butyl phthalate	3.92	3.80		ug/L		97	70 - 130
Di-n-octyl phthalate	1.96	1.52		ug/L		78	70 - 130
Endosulfan I (Alpha)	1.96	1.88		ug/L		96	70 - 130
Endosulfan II (Beta)	1.96	1.89		ug/L		96	70 - 130
Endosulfan sulfate	1.96	1.78		ug/L		91	70 - 130
Endrin	1.96	1.68		ug/L		86	70 - 130
Endrin aldehyde	1.96	1.24		ug/L		63	60 - 130
EPTC	1.96	1.94		ug/L		99	70 - 130
Fluoranthene	1.96	1.92		ug/L		98	70 - 130
Fluorene	1.96	1.86		ug/L		95	70 - 130
gamma-BHC (Lindane)	1.96	1.83		ug/L		93	70 - 130
gamma-Chlordane	1.96	1.87		ug/L		95	70 - 130
Heptachlor	1.96	1.76		ug/L		90	70 - 130
Heptachlor epoxide (isomer B)	1.96	1.98		ug/L		101	70 - 130
Hexachlorobenzene	1.96	1.62		ug/L		83	70 - 130
Hexachlorocyclopentadiene	1.96	1.79		ug/L		91	70 - 130
Indeno[1,2,3-cd]pyrene	1.96	1.92		ug/L		98	70 - 130
Isophorone	1.96	1.94		ug/L		99	70 - 130
Malathion	1.96	1.91		ug/L		98	70 - 130
Methoxychlor	1.96	2.04		ug/L		104	70 - 130
Metolachlor	1.96	1.93		ug/L		98	70 - 130
Molinate	1.96	2.02		ug/L		103	70 - 130
Naphthalene	1.96	1.74		ug/L		89	70 - 130
Parathion	1.96	1.89		ug/L		96	70 - 130
Pendimethalin (Penoxaline)	1.96	1.78		ug/L		91	70 - 130
Phenanthrene	1.96	1.75		ug/L		89	70 - 130
Propachlor	1.96	1.92		ug/L		98	70 - 130
Pyrene	1.96	1.90		ug/L		97	70 - 130
Simazine	1.96	1.96		ug/L		100	70 - 130
Terbacil	1.96	1.89		ug/L		97	70 - 130
Terbutylazine	1.96	1.92		ug/L		98	70 - 130
Thiobencarb	1.96	1.87		ug/L		95	70 - 130
trans-Nonachlor	1.96	1.95		ug/L		100	70 - 130
Trifluralin	1.96	1.62		ug/L		83	70 - 130
1-Methylnaphthalene	1.96	1.79		ug/L		91	70 - 130
2-Methylnaphthalene	1.96	1.77		ug/L		90	70 - 130

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-100689/23-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100689

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	90		70 - 130

Lab Sample ID: MRL 380-100689/22-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0979	0.0975	J	ug/L		100	50 - 150
2,4'-DDE	0.0979	0.102		ug/L		104	50 - 150
2,4'-DDT	0.0979	0.0956	J	ug/L		98	50 - 150
2,4-Dinitrotoluene	0.0979	0.0904	J	ug/L		92	50 - 150
2,6-Dinitrotoluene	0.0979	0.0962	J	ug/L		98	50 - 150
4,4'-DDD	0.0979	0.107		ug/L		109	50 - 150
4,4'-DDE	0.0979	0.0915	J	ug/L		93	50 - 150
4,4'-DDT	0.0979	0.0909	J	ug/L		93	50 - 150
Acenaphthene	0.0979	0.0874	J	ug/L		89	50 - 150
Acenaphthylene	0.0979	0.0770	J	ug/L		79	50 - 150
Acetochlor	0.0979	0.113		ug/L		116	50 - 150
Alachlor	0.0490	0.0487	J	ug/L		99	50 - 150
alpha-BHC	0.0979	0.105		ug/L		107	50 - 150
alpha-Chlordane	0.0245	<0.028		ug/L		105	50 - 150
Anthracene	0.0196	<0.019		ug/L		88	50 - 150
Atrazine	0.0490	0.0470	J	ug/L		96	50 - 150
Benz(a)anthracene	0.0490	0.0514		ug/L		105	50 - 150
Benzo[a]pyrene	0.0196	0.0163	J	ug/L		83	50 - 150
Benzo[b]fluoranthene	0.0196	0.0185	J	ug/L		94	50 - 150
Benzo[g,h,i]perylene	0.0490	0.0411	J	ug/L		84	50 - 150
Benzo[k]fluoranthene	0.0196	0.0189	J	ug/L		96	50 - 150
beta-BHC	0.0979	0.102		ug/L		104	50 - 150
Bis(2-ethylhexyl) phthalate	0.588	0.554	J	ug/L		94	50 - 150
Aldrin	0.00979	0.00985		ug/L		101	50 - 150
Bromacil	0.0979	0.104		ug/L		107	50 - 150
Butachlor	0.0490	0.0570		ug/L		116	50 - 150
Butylbenzylphthalate	0.490	0.490		ug/L		100	50 - 150
Chlorobenzilate	0.0979	0.0807	J	ug/L		82	50 - 150
Chloroneb	0.0979	0.0929	J	ug/L		95	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0979	0.0995		ug/L		102	50 - 150
Chlorpyrifos	0.0490	0.0496		ug/L		101	50 - 150
Chrysene	0.0196	0.0235		ug/L		120	50 - 150
delta-BHC	0.0979	0.110		ug/L		113	50 - 150
Di(2-ethylhexyl)adipate	0.588	0.540	J	ug/L		92	50 - 150
Dibenz(a,h)anthracene	0.0490	0.0462	J	ug/L		94	50 - 150
Diclorvos (DDVP)	0.0490	0.0585		ug/L		119	50 - 150
Dieldrin	0.00979	0.00812	J	ug/L		83	50 - 150
Diethylphthalate	0.490	0.495		ug/L		101	50 - 150
Dimethylphthalate	0.490	0.518		ug/L		106	50 - 150

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-100689/22-A
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	0.490	0.503	J	ug/L		103	49 - 243
Di-n-octyl phthalate	0.0979	0.0880	J	ug/L		90	50 - 150
Endosulfan I (Alpha)	0.0979	0.0886	J	ug/L		90	50 - 150
Endosulfan II (Beta)	0.0979	0.121		ug/L		123	50 - 150
Endosulfan sulfate	0.0979	0.0955	J	ug/L		97	50 - 150
Endrin	0.00979	0.0108		ug/L		110	50 - 150
Endrin aldehyde	0.0979	<0.082		ug/L		73	50 - 150
EPTC	0.0979	0.0886	J	ug/L		90	50 - 150
Fluoranthene	0.0979	0.0940	J	ug/L		96	50 - 150
Fluorene	0.0490	0.0491		ug/L		100	50 - 150
gamma-BHC (Lindane)	0.00979	0.0124		ug/L		126	50 - 150
gamma-Chlordane	0.0245	0.0246	J	ug/L		100	50 - 150
Heptachlor	0.00979	0.0125		ug/L		128	50 - 150
Heptachlor epoxide (isomer B)	0.00979	0.0128		ug/L		131	50 - 150
Hexachlorobenzene	0.0490	0.0477	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0490	0.0477	J	ug/L		97	50 - 150
Indeno[1,2,3-cd]pyrene	0.0490	0.0481	J	ug/L		98	50 - 150
Isophorone	0.0979	0.117		ug/L		119	50 - 150
Malathion	0.0979	0.0975	J	ug/L		100	50 - 150
Methoxychlor	0.0490	0.0594		ug/L		121	50 - 150
Metolachlor	0.0490	0.0555		ug/L		113	50 - 150
Molinate	0.0979	0.106		ug/L		108	50 - 150
Naphthalene	0.0979	0.0979	J	ug/L		100	50 - 150
Parathion	0.0979	0.0948	J	ug/L		97	50 - 150
Pendimethalin (Penoxaline)	0.0979	0.0902	J	ug/L		92	50 - 150
Phenanthrene	0.0392	0.0407		ug/L		104	50 - 150
Propachlor	0.0490	0.0498		ug/L		102	50 - 150
Pyrene	0.0490	0.0479	J	ug/L		98	50 - 150
Simazine	0.0490	0.0465	J	ug/L		95	50 - 150
Terbacil	0.0979	0.0907	J	ug/L		93	50 - 150
Terbutylazine	0.0979	0.0916	J	ug/L		94	50 - 150
Thiobencarb	0.0979	0.109		ug/L		111	50 - 150
trans-Nonachlor	0.0245	<0.025		ug/L		95	50 - 150
Trifluralin	0.0979	0.0817	J	ug/L		83	50 - 150
1-Methylnaphthalene	0.0979	0.103		ug/L		105	50 - 150
2-Methylnaphthalene	0.0979	0.0984		ug/L		100	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	88		70 - 130

Lab Sample ID: 380-105515-1 MS
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Aiea Wells P2
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.097		1.94	1.99		ug/L		103	70 - 130

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-105515-1 MS

Matrix: Water

Analysis Batch: 100873

Client Sample ID: Aiea Wells P2

Prep Type: Total/NA

Prep Batch: 100689

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4'-DDE	<0.097		1.94	1.82		ug/L		94	70 - 130
2,4'-DDT	<0.097		1.94	2.00		ug/L		103	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.69		ug/L		87	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.80		ug/L		93	70 - 130
4,4'-DDD	<0.097		1.94	2.03		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.94	1.86		ug/L		96	70 - 130
4,4'-DDT	<0.097		1.94	1.91		ug/L		98	70 - 130
Acenaphthene	<0.097		1.94	1.88		ug/L		97	70 - 130
Acenaphthylene	<0.097		1.94	1.77		ug/L		91	70 - 130
Acetochlor	<0.097		1.94	2.17		ug/L		112	70 - 130
Alachlor	<0.048		1.94	2.09		ug/L		108	70 - 130
alpha-BHC	<0.097		1.94	1.84		ug/L		95	70 - 130
alpha-Chlordane	<0.048		1.94	2.06		ug/L		106	70 - 130
Anthracene	<0.019	F1	1.94	1.29	F1	ug/L		66	70 - 130
Atrazine	<0.048		1.94	1.94		ug/L		100	70 - 130
Benz(a)anthracene	<0.048		1.94	1.79		ug/L		92	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.81		ug/L		93	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.03		ug/L		104	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	2.22		ug/L		115	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.06		ug/L		106	70 - 130
beta-BHC	<0.097		1.94	1.86		ug/L		96	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.85		ug/L		95	70 - 130
Aldrin	<0.0097		1.94	1.79		ug/L		92	70 - 130
Bromacil	<0.097		1.94	1.88		ug/L		97	70 - 130
Butachlor	<0.048		1.94	2.08		ug/L		107	70 - 130
Butylbenzylphthalate	<0.48		1.94	2.13		ug/L		110	70 - 130
Chlorobenzilate	<0.097		1.94	1.95		ug/L		101	70 - 130
Chloroneb	<0.097		1.94	1.85		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	1.96		ug/L		101	70 - 130
Chlorpyrifos	<0.048		1.94	2.01		ug/L		103	70 - 130
Chrysene	<0.019		1.94	1.98		ug/L		102	70 - 130
delta-BHC	<0.097		1.94	1.99		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	1.88		ug/L		97	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	2.09		ug/L		108	70 - 130
Diclorvos (DDVP)	<0.048		1.94	1.93		ug/L		99	70 - 130
Dieldrin	<0.0097		1.94	2.05		ug/L		105	70 - 130
Diethylphthalate	<0.48		1.94	1.85		ug/L		95	70 - 130
Dimethylphthalate	<0.48		1.94	1.99		ug/L		103	70 - 130
Di-n-butyl phthalate	<0.97		3.88	4.06		ug/L		105	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.56		ug/L		80	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	2.06		ug/L		106	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.11		ug/L		109	70 - 130
Endosulfan sulfate	<0.097		1.94	1.95		ug/L		100	70 - 130
Endrin	<0.0097		1.94	1.94		ug/L		100	70 - 130
Endrin aldehyde	<0.097		1.94	1.44		ug/L		74	60 - 130
EPTC	<0.097		1.94	1.94		ug/L		100	70 - 130
Fluoranthene	<0.097		1.94	1.93		ug/L		99	70 - 130
Fluorene	<0.048		1.94	1.84		ug/L		95	70 - 130
gamma-BHC (Lindane)	<0.0097		1.94	1.81		ug/L		93	70 - 130

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-105515-1 MS
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Aiea Wells P2
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
gamma-Chlordane	<0.048		1.94	2.02		ug/L		104	70 - 130
Heptachlor	<0.0097		1.94	1.85		ug/L		95	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.09		ug/L		108	70 - 130
Hexachlorobenzene	<0.048		1.94	1.68		ug/L		86	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	1.86		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	2.05		ug/L		106	70 - 130
Isophorone	<0.097		1.94	1.92		ug/L		99	70 - 130
Malathion	<0.097		1.94	2.04		ug/L		105	70 - 130
Methoxychlor	<0.048		1.94	2.07		ug/L		107	70 - 130
Metolachlor	<0.048		1.94	2.02		ug/L		104	70 - 130
Molinate	<0.097		1.94	1.98		ug/L		102	70 - 130
Naphthalene	<0.097		1.94	1.75		ug/L		90	70 - 130
Parathion	<0.097		1.94	2.02		ug/L		104	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	1.93		ug/L		99	70 - 130
Phenanthrene	<0.039		1.94	1.79		ug/L		92	70 - 130
Propachlor	<0.048		1.94	1.95		ug/L		100	70 - 130
Pyrene	<0.048		1.94	1.93		ug/L		99	70 - 130
Simazine	<0.048		1.94	2.00		ug/L		103	70 - 130
Terbacil	<0.097		1.94	2.05		ug/L		106	70 - 130
Terbutylazine	<0.097		1.94	2.05		ug/L		105	70 - 130
Thiobencarb	<0.097		1.94	1.90		ug/L		98	70 - 130
trans-Nonachlor	<0.048		1.94	2.10		ug/L		108	70 - 130
Trifluralin	<0.097		1.94	1.68		ug/L		87	70 - 130
1-Methylnaphthalene	<0.097		1.94	1.78		ug/L		92	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.81		ug/L		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	100		70 - 130

Lab Sample ID: 380-105515-1 DU
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Aiea Wells P2
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,4'-DDD	<0.097		<0.097		ug/L		NC	20
2,4'-DDE	<0.097		<0.097		ug/L		NC	20
2,4'-DDT	<0.097		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
4,4'-DDD	<0.097		<0.097		ug/L		NC	20
4,4'-DDE	<0.097		<0.097		ug/L		NC	20
4,4'-DDT	<0.097		<0.097		ug/L		NC	20
Acenaphthene	<0.097		<0.097		ug/L		NC	20
Acenaphthylene	<0.097		<0.097		ug/L		NC	20
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-105515-1 DU
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Aiea Wells P2
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019	F1	<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Aldrin	<0.0097		<0.0097		ug/L		NC	20
Bromacil	<0.097		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.097		ug/L		NC	20
Chloroneb	<0.097		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0097		<0.0097		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-BHC (Lindane)	<0.0097		<0.0097		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-105515-1 DU
Matrix: Water
Analysis Batch: 100873

Client Sample ID: Aiea Wells P2
Prep Type: Total/NA
Prep Batch: 100689

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.097		ug/L		NC	20
Terbuthylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20
1-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	101		70 - 130

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

Lab Sample ID: MB 570-466384/10
Matrix: Water
Analysis Batch: 466384

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			08/01/24 17:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		38 - 134		08/01/24 17:44	1

Lab Sample ID: LCS 570-466384/1008
Matrix: Water
Analysis Batch: 466384

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (C4-C13)	400	391		ug/L		98	78 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	87		38 - 134

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCSD 570-466384/9
Matrix: Water
Analysis Batch: 466384

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	391		ug/L		98	78 - 120	0	10
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
4-Bromofluorobenzene (Surr)		95					38 - 134		

Lab Sample ID: MRL 570-466384/1003
Matrix: Water
Analysis Batch: 466384

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	10.0	11.2		ug/L		112	50 - 150		
Surrogate		MRL %Recovery	MRL Qualifier				Limits		
4-Bromofluorobenzene (Surr)		89					38 - 134		

Lab Sample ID: 380-105582-C-1 MS
Matrix: Water
Analysis Batch: 466384

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
Gasoline Range Organics (C4-C13)	<10		400	385		ug/L		96	68 - 122		
Surrogate		MS %Recovery		MS Qualifier					Limits		
4-Bromofluorobenzene (Surr)		92							38 - 134		

Lab Sample ID: 380-105582-C-1 MSD
Matrix: Water
Analysis Batch: 466384

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	410		ug/L		102	68 - 122	6	18
Surrogate		MSD %Recovery		MSD Qualifier					Limits		
4-Bromofluorobenzene (Surr)		93							38 - 134		

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

Lab Sample ID: MBL 380-100691/4-A
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100691

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		07/25/24 15:00	07/25/24 18:34	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		07/25/24 15:00	07/25/24 18:34	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		07/25/24 15:00	07/25/24 18:34	1

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	99		60 - 140	07/25/24 15:00	07/25/24 18:34	1

Lab Sample ID: LCS 380-100691/29-A
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.207		ug/L		103	70 - 130
1,2-Dibromo-3-Chloropropane	0.200	0.192		ug/L		96	70 - 130
1,2-Dibromoethane	0.200	0.197		ug/L		98	70 - 130

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

Lab Sample ID: MRL 380-100691/2-A
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100691

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0200	0.0230		ug/L		115	60 - 140

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dibromopropane (Surr)	96		60 - 140

Lab Sample ID: MRL 380-100691/3-A
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100691

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0503		ug/L		101	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.0105		ug/L		105	60 - 140
1,2-Dibromoethane	0.0100	0.00978	J	ug/L		98	60 - 140

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dibromopropane (Surr)	98		60 - 140

Lab Sample ID: 380-103973-BY-1-A MS
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.25	1.18		ug/L		94	65 - 135
1,2-Dibromo-3-Chloropropane	<0.010		0.251	0.233		ug/L		93	65 - 135
1,2-Dibromoethane	<0.010		0.251	0.227		ug/L		90	65 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dibromopropane (Surr)	90		60 - 140

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-103973-CA-1-A DU
Matrix: Water
Analysis Batch: 100946

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 100691

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
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
DU DU								
Surrogate	%Recovery	Qualifier	Limits					
1,2-Dibromopropane (Surr)	90		60 - 140					

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 380-100683/14-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100683

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Toxaphene	<0.50		0.50	ug/L		07/25/24 12:50	07/25/24 19:16	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1016	<0.070		0.070	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1221	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1232	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1242	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1248	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1254	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
PCB-1260	<0.070		0.070	ug/L		07/25/24 12:50	07/25/24 19:16	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		07/25/24 12:50	07/25/24 19:16	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared		Analyzed	Dil Fac	
Tetrachloro-m-xylene	122		70 - 130	07/25/24 12:50	07/25/24 19:16		1	

Lab Sample ID: LCS 380-100683/45-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

Surrogate	LCS	LCS	Limits					
	%Recovery	Qualifier						
Tetrachloro-m-xylene	109		70 - 130					

Lab Sample ID: LCS 380-100683/8-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
PCB-1248	0.500	0.483		ug/L		97	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	95		70 - 130				

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-100683/46-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 100683

	LCSD %Recovery	LCSD Qualifier	Limits
<i>Surrogate</i> Tetrachloro-m-xylene	102		70 - 130

Lab Sample ID: MRL 380-100683/10-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

	MRL %Recovery	MRL Qualifier	Limits
<i>Surrogate</i> Tetrachloro-m-xylene	119		70 - 130

Lab Sample ID: MRL 380-100683/11-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	0.500	0.539		ug/L		108	50 - 150
<i>Surrogate</i> Tetrachloro-m-xylene							
	MRL %Recovery	MRL Qualifier	Limits				
	101		70 - 130				

Lab Sample ID: MRL 380-100683/12-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	0.100	0.118		ug/L		118	50 - 150
<i>Surrogate</i> Tetrachloro-m-xylene							
	MRL %Recovery	MRL Qualifier	Limits				
	120		70 - 130				

Lab Sample ID: MRL 380-100683/13-A
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1248	0.100	0.0941	J	ug/L		94	50 - 150
<i>Surrogate</i> Tetrachloro-m-xylene							
	MRL %Recovery	MRL Qualifier	Limits				
	96		70 - 130				

Lab Sample ID: 380-104825-BV-1-A MS
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100683

	MS %Recovery	MS Qualifier	Limits
<i>Surrogate</i> Tetrachloro-m-xylene	116		70 - 130

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: 380-104825-BW-1-A MS
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	<0.50		2.47	2.74		ug/L		111	65 - 135
Surrogate	%Recovery	MS Qualifier	MS Limits						
Tetrachloro-m-xylene	109		70 - 130						

Lab Sample ID: 380-104825-BX-1-A MS
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.099		0.497	0.443		ug/L		89	65 - 135
Surrogate	%Recovery	MS Qualifier	MS Limits						
Tetrachloro-m-xylene	100		70 - 130						

Lab Sample ID: 380-104835-BW-1-A MS
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100683

Surrogate	%Recovery	MS Qualifier	MS Limits						
Tetrachloro-m-xylene	102		70 - 130						

Lab Sample ID: 380-104835-BY-1-A MS
Matrix: Water
Analysis Batch: 101259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100683

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1248	<0.10		0.506	0.521		ug/L		103	65 - 135
Surrogate	%Recovery	MS Qualifier	MS Limits						
Tetrachloro-m-xylene	105		70 - 130						

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

Lab Sample ID: MB 570-465129/1-A
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 465129

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		07/29/24 16:16	08/01/24 11:31	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		07/29/24 16:16	08/01/24 11:31	1
C8-C18	<25		25	ug/L		07/29/24 16:16	08/01/24 11:31	1
Surrogate	%Recovery	MB Qualifier	MB Limits					
n-Octacosane (Surr)	111		60 - 130					
						Prepared	Analyzed	Dil Fac
						07/29/24 16:16	08/01/24 11:31	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 570-465129/2-A
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 465129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1340		ug/L		84	56 - 127
Surrogate	%Recovery	LCS Qualifier	Limits				
<i>n-Octacosane (Surr)</i>	114		60 - 130				

Lab Sample ID: LCSD 570-465129/3-A
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 465129

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1340		ug/L		84	56 - 127	0	23
Surrogate	%Recovery	LCSD Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	114		60 - 130						

Lab Sample ID: MRL 570-465129/4-A
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 465129

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	<0.020		mg/L		59	50 - 150
Surrogate	%Recovery	MRL Qualifier	Limits				
<i>n-Octacosane (Surr)</i>	107		60 - 130				

Lab Sample ID: 380-105582-B-1-A MS
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 465129

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<26		1650	1460		ug/L		88	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	109		60 - 130						

Lab Sample ID: 380-105582-B-1-B MSD
Matrix: Water
Analysis Batch: 466159

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 465129

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1620	1570		ug/L		97	70 - 130	7	20
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	115		60 - 130								

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-100641/39
Matrix: Water
Analysis Batch: 100641

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.050		0.050	mg/L			07/24/24 22:27	1
Nitrite as N	<0.050		0.050	mg/L			07/24/24 22:27	1

Lab Sample ID: LCS 380-100641/42
Matrix: Water
Analysis Batch: 100641

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.50	2.45		mg/L		98	90 - 110
Nitrite as N	1.00	1.03		mg/L		103	90 - 110

Lab Sample ID: LCSD 380-100641/43
Matrix: Water
Analysis Batch: 100641

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
Nitrate as N	2.50	2.43		mg/L		97	90 - 110	1	20
Nitrite as N	1.00	1.02		mg/L		102	90 - 110	0	20

Lab Sample ID: MRL 380-100641/40
Matrix: Water
Analysis Batch: 100641

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.0125	0.0129	J	mg/L		103	50 - 150
Nitrite as N	0.0125	0.0108	J	mg/L		87	50 - 150

Lab Sample ID: MRL 380-100641/41
Matrix: Water
Analysis Batch: 100641

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.0500	0.0469	J	mg/L		94	50 - 150
Nitrite as N	0.0500	0.0508		mg/L		102	50 - 150

Lab Sample ID: 380-105490-A-4 MS
Matrix: Water
Analysis Batch: 100641

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
Nitrate as N	0.070		1.25	1.27		mg/L		96	80 - 120
Nitrite as N	<0.050		0.500	0.512		mg/L		102	80 - 120

Lab Sample ID: 380-105490-A-4 MSD
Matrix: Water
Analysis Batch: 100641

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
Nitrate as N	0.070		1.25	1.27		mg/L		96	80 - 120	1	20
Nitrite as N	<0.050		0.500	0.509		mg/L		102	80 - 120	1	20

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-100642/39
Matrix: Water
Analysis Batch: 100642

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			07/24/24 22:27	1
Sulfate	<0.25		0.25	mg/L			07/24/24 22:27	1

Lab Sample ID: LCS 380-100642/42
Matrix: Water
Analysis Batch: 100642

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	25.4		mg/L		102	90 - 110
Sulfate	50.0	50.6		mg/L		101	90 - 110

Lab Sample ID: LCSD 380-100642/43
Matrix: Water
Analysis Batch: 100642

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	25.3		mg/L		101	90 - 110	0	20
Sulfate	50.0	50.6		mg/L		101	90 - 110	0	20

Lab Sample ID: MRL 380-100642/40
Matrix: Water
Analysis Batch: 100642

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	0.121	J	mg/L		97	50 - 150
Sulfate	0.250	0.249	J	mg/L		100	50 - 150

Lab Sample ID: MRL 380-100642/41
Matrix: Water
Analysis Batch: 100642

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	0.449	J	mg/L		90	50 - 150
Sulfate	0.999	0.941		mg/L		94	50 - 150

Lab Sample ID: 380-105490-A-4 MS
Matrix: Water
Analysis Batch: 100642

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	<0.50		12.5	12.8		mg/L		99	80 - 120
Sulfate	<0.25		25.0	24.9		mg/L		99	80 - 120

Lab Sample ID: 380-105490-A-4 MSD
Matrix: Water
Analysis Batch: 100642

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	<0.50		12.5	12.7		mg/L		98	80 - 120	0	20
Sulfate	<0.25		25.0	24.8		mg/L		99	80 - 120	1	20

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-101162/5
Matrix: Water
Analysis Batch: 101162

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			07/26/24 17:31	1

Lab Sample ID: LCS 380-101162/6
Matrix: Water
Analysis Batch: 101162

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	97.4		ug/L		97	90 - 110

Lab Sample ID: LCSD 380-101162/7
Matrix: Water
Analysis Batch: 101162

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	97.6		ug/L		98	90 - 110	0	10

Lab Sample ID: MRL 380-101162/4
Matrix: Water
Analysis Batch: 101162

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	5.33		ug/L		107	75 - 125

Lab Sample ID: 380-105443-A-6 MS
Matrix: Water
Analysis Batch: 101162

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	<5.0		50.0	52.3		ug/L		99	80 - 120

Lab Sample ID: 380-105443-A-6 MSD
Matrix: Water
Analysis Batch: 101162

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	<5.0		50.0	51.6		ug/L		97	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 380-100935/237
Matrix: Water
Analysis Batch: 100935

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.0		1.0	mg/L			07/25/24 20:12	1
Magnesium	<0.10		0.10	mg/L			07/25/24 20:12	1
Potassium	<1.0		1.0	mg/L			07/25/24 20:12	1
Sodium	<1.0		1.0	mg/L			07/25/24 20:12	1

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-100935/239
Matrix: Water
Analysis Batch: 100935

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	50.0		mg/L		100	85 - 115
Magnesium	20.0	19.4		mg/L		97	85 - 115
Potassium	20.0	19.7		mg/L		99	85 - 115
Sodium	50.0	48.4		mg/L		97	85 - 115

Lab Sample ID: LCSD 380-100935/242
Matrix: Water
Analysis Batch: 100935

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	49.3		mg/L		99	85 - 115	1	20
Magnesium	20.0	19.1		mg/L		96	85 - 115	2	20
Potassium	20.0	19.4		mg/L		97	85 - 115	2	20
Sodium	50.0	47.6		mg/L		95	85 - 115	2	20

Lab Sample ID: LLCS 380-100935/238
Matrix: Water
Analysis Batch: 100935

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	0.0932	J	mg/L		93	50 - 150
Potassium	1.00	0.704	J	mg/L		70	50 - 150
Sodium	1.00	0.991	J	mg/L		99	50 - 150

Lab Sample ID: 380-105503-Z-3 MS
Matrix: Water
Analysis Batch: 100935

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	12		50.0	62.5		mg/L		101	70 - 130
Magnesium	0.19		20.0	20.4		mg/L		101	70 - 130
Potassium	1.4		20.0	22.5		mg/L		105	70 - 130
Sodium	18		50.0	65.9		mg/L		95	70 - 130

Lab Sample ID: 380-105503-Z-3 MSD
Matrix: Water
Analysis Batch: 100935

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	12		50.0	62.4		mg/L		101	70 - 130	0	20
Magnesium	0.19		20.0	20.3		mg/L		100	70 - 130	1	20
Potassium	1.4		20.0	22.4		mg/L		105	70 - 130	0	20
Sodium	18		50.0	66.0		mg/L		95	70 - 130	0	20

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MBL 380-100870/95
Matrix: Water
Analysis Batch: 100870

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			07/25/24 19:10	1
Arsenic	<0.49		1.0	ug/L			07/25/24 19:10	1
Beryllium	<0.18		1.0	ug/L			07/25/24 19:10	1
Cadmium	<0.081		0.50	ug/L			07/25/24 19:10	1
Chromium	<0.80		1.0	ug/L			07/25/24 19:10	1
Copper	<0.27		2.0	ug/L			07/25/24 19:10	1
Lead	<0.29		0.50	ug/L			07/25/24 19:10	1
Nickel	<0.38		5.0	ug/L			07/25/24 19:10	1
Selenium	<1.0		5.0	ug/L			07/25/24 19:10	1
Silver	<0.40		0.50	ug/L			07/25/24 19:10	1
Thallium	<0.32		1.0	ug/L			07/25/24 19:10	1
Zinc	<4.3		20	ug/L			07/25/24 19:10	1

Lab Sample ID: LCS 380-100870/99
Matrix: Water
Analysis Batch: 100870

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	51.4		ug/L		103	85 - 115
Arsenic	50.0	49.6		ug/L		99	85 - 115
Beryllium	25.0	25.5		ug/L		102	85 - 115
Cadmium	25.0	25.3		ug/L		101	85 - 115
Chromium	50.0	52.9		ug/L		106	85 - 115
Copper	50.0	50.8		ug/L		102	85 - 115
Lead	50.0	52.5		ug/L		105	85 - 115
Nickel	50.0	49.7		ug/L		99	85 - 115
Selenium	50.0	51.0		ug/L		102	85 - 115
Silver	25.0	25.0		ug/L		100	85 - 115
Thallium	50.0	52.6		ug/L		105	85 - 115
Zinc	50.0	49.6		ug/L		99	85 - 115

Lab Sample ID: LCSD 380-100870/100
Matrix: Water
Analysis Batch: 100870

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	50.7		ug/L		101	85 - 115	1	20
Arsenic	50.0	48.2		ug/L		96	85 - 115	3	20
Beryllium	25.0	26.5		ug/L		106	85 - 115	4	20
Cadmium	25.0	24.7		ug/L		99	85 - 115	2	20
Chromium	50.0	50.4		ug/L		101	85 - 115	5	20
Copper	50.0	49.5		ug/L		99	85 - 115	3	20
Lead	50.0	51.4		ug/L		103	85 - 115	2	20
Nickel	50.0	48.5		ug/L		97	85 - 115	2	20
Selenium	50.0	49.5		ug/L		99	85 - 115	3	20
Silver	25.0	25.2		ug/L		101	85 - 115	1	20
Thallium	50.0	51.3		ug/L		103	85 - 115	2	20
Zinc	50.0	48.5		ug/L		97	85 - 115	2	20

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LLCS 380-100870/98
Matrix: Water
Analysis Batch: 100870

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	1.11		ug/L		111	50 - 150
Arsenic	1.00	0.994	J	ug/L		99	50 - 150
Beryllium	1.00	1.03		ug/L		103	50 - 150
Cadmium	0.500	0.587		ug/L		117	50 - 150
Chromium	1.00	1.38		ug/L		138	50 - 150
Copper	2.00	1.92	J	ug/L		96	50 - 150
Lead	0.500	0.628		ug/L		126	50 - 150
Nickel	5.00	4.96	J	ug/L		99	50 - 150
Selenium	5.00	5.14		ug/L		103	50 - 150
Silver	0.500	0.562		ug/L		112	50 - 150
Thallium	1.00	1.08		ug/L		108	50 - 150
Zinc	20.0	20.3		ug/L		101	50 - 150

Lab Sample ID: 380-105502-A-4 MS
Matrix: Water
Analysis Batch: 100870

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	52.6		ug/L		105	70 - 130
Arsenic	<1.0		50.0	51.5		ug/L		103	70 - 130
Beryllium	<1.0		25.0	28.0		ug/L		112	70 - 130
Cadmium	<0.50		25.0	25.7		ug/L		103	70 - 130
Chromium	2.2		50.0	51.3		ug/L		98	70 - 130
Copper	<2.0		50.0	47.5		ug/L		95	70 - 130
Lead	<0.50		50.0	50.2		ug/L		100	70 - 130
Nickel	<5.0		50.0	46.8		ug/L		94	70 - 130
Selenium	<5.0		50.0	55.8		ug/L		112	70 - 130
Silver	<0.50		25.0	24.2		ug/L		97	70 - 130
Thallium	<1.0		50.0	49.2		ug/L		98	70 - 130
Zinc	<20		50.0	49.9		ug/L		100	70 - 130

Lab Sample ID: 380-105502-A-4 MSD
Matrix: Water
Analysis Batch: 100870

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	50.7		ug/L		101	70 - 130	4	20
Arsenic	<1.0		50.0	52.6		ug/L		105	70 - 130	2	20
Beryllium	<1.0		25.0	27.9		ug/L		112	70 - 130	0	20
Cadmium	<0.50		25.0	25.5		ug/L		102	70 - 130	1	20
Chromium	2.2		50.0	53.2		ug/L		102	70 - 130	4	20
Copper	<2.0		50.0	49.0		ug/L		98	70 - 130	3	20
Lead	<0.50		50.0	49.9		ug/L		100	70 - 130	1	20
Nickel	<5.0		50.0	47.9		ug/L		96	70 - 130	2	20
Selenium	<5.0		50.0	57.7		ug/L		115	70 - 130	3	20
Silver	<0.50		25.0	23.6		ug/L		94	70 - 130	3	20
Thallium	<1.0		50.0	50.1		ug/L		100	70 - 130	2	20
Zinc	<20		50.0	50.9		ug/L		102	70 - 130	2	20

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 810-107953/1-A
Matrix: Water
Analysis Batch: 108055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 107953

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		07/31/24 11:38	07/31/24 16:10	1

Lab Sample ID: LCS 810-107953/3-A
Matrix: Water
Analysis Batch: 108055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107953

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.06		ug/L		106	85 - 115

Lab Sample ID: LLCS 810-107953/2-A
Matrix: Water
Analysis Batch: 108055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107953

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.100	0.0919	J	ug/L		92	50 - 150

Lab Sample ID: 810-112802-K-1-B MSD
Matrix: Water
Analysis Batch: 108055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 107953

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.10		1.00	1.03		ug/L		103	70 - 130	5	20

Lab Sample ID: 810-112802-K-1-C MS
Matrix: Water
Analysis Batch: 108055

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 107953

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.10		1.00	1.08		ug/L		108	70 - 130

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-101282/1
Matrix: Water
Analysis Batch: 101282

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			07/29/24 15:42	1
Bicarbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			07/29/24 15:42	1
Carbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			07/29/24 15:42	1

Lab Sample ID: LCS 380-101282/3
Matrix: Water
Analysis Batch: 101282

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	98.9		mg/L		99	90 - 110

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 380-101282/18
Matrix: Water
Analysis Batch: 101282

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	98.6		mg/L		99	90 - 110	0	20

Lab Sample ID: LLCS 380-101282/4
Matrix: Water
Analysis Batch: 101282

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	20.0	20.9		mg/L		105	90 - 110		

Lab Sample ID: MRL 380-101282/2
Matrix: Water
Analysis Batch: 101282

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	2.00	1.72	J	mg/L		86	50 - 150		

Lab Sample ID: 380-104951-BQ-1 MS
Matrix: Water
Analysis Batch: 101282

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
Alkalinity	4.0		100	112		mg/L		108	80 - 120		

Lab Sample ID: 380-104951-BQ-1 MSD
Matrix: Water
Analysis Batch: 101282

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	4.0		100	112		mg/L		108	80 - 120	0	20

Lab Sample ID: 380-104951-BQ-1 DU
Matrix: Water
Analysis Batch: 101282

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	4.0		100	4.15		mg/L				3	20
Bicarbonate Alkalinity as CaCO3	5.5			5.57		mg/L				1	20
Carbonate Alkalinity as CaCO3	<2.0			<2.0		mg/L				NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-101285/2
Matrix: Water
Analysis Batch: 101285

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			07/29/24 15:42	1

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QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-101285/4
Matrix: Water
Analysis Batch: 101285

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	998		umhos/cm		100	90 - 110

Lab Sample ID: LCSD 380-101285/16
Matrix: Water
Analysis Batch: 101285

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	996		umhos/cm		100	90 - 110	0	10

Lab Sample ID: MRL 380-101285/3
Matrix: Water
Analysis Batch: 101285

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	2.10		umhos/cm		105	50 - 150

Lab Sample ID: 380-104951-BQ-1 DU
Matrix: Water
Analysis Batch: 101285

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	54		54.0		umhos/cm		0.2	20

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

Lab Sample ID: MB 380-100754/1
Matrix: Water
Analysis Batch: 100754

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			07/25/24 14:13	1

Lab Sample ID: HLCS 380-100754/5
Matrix: Water
Analysis Batch: 100754

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 380-100754/4
Matrix: Water
Analysis Batch: 100754

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	176		mg/L		101	80 - 114

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-100754/2
Matrix: Water
Analysis Batch: 100754

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	9.00	J	mg/L		90	50 - 150

Lab Sample ID: MRL 380-100754/3
Matrix: Water
Analysis Batch: 100754

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	11.0		mg/L		110	50 - 150

Lab Sample ID: 380-105519-W-1 DU
Matrix: Water
Analysis Batch: 100754

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	190		190		mg/L		1	10

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-101125/1
Matrix: Water
Analysis Batch: 101125

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			07/26/24 13:59	1

Lab Sample ID: LCS 380-101125/3
Matrix: Water
Analysis Batch: 101125

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	1.02		mg/L		102	90 - 110

Lab Sample ID: LCSD 380-101125/4
Matrix: Water
Analysis Batch: 101125

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	1.03		mg/L		103	90 - 110	1	10

Lab Sample ID: MRL 380-101125/2
Matrix: Water
Analysis Batch: 101125

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	0.0500		mg/L		100	50 - 150

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 380-105429-O-1 MS
Matrix: Water
Analysis Batch: 101125

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	0.17		1.00	1.23		mg/L		106	80 - 120

Lab Sample ID: 380-105429-O-1 MSD
Matrix: Water
Analysis Batch: 101125

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	0.17		1.00	1.18		mg/L		101	80 - 120	4	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 380-101288/5
Matrix: Water
Analysis Batch: 101288

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 380-101288/17
Matrix: Water
Analysis Batch: 101288

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: 380-104951-BQ-1 DU
Matrix: Water
Analysis Batch: 101288

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.8		7.0		SU		2	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MBL 380-101138/2
Matrix: Water
Analysis Batch: 101138

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			07/29/24 10:42	1

Lab Sample ID: LCS 380-101138/5
Matrix: Water
Analysis Batch: 101138

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	0.269		mg/L		108	90 - 110

QC Sample Results

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

Job ID: 380-105515-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-101138/6
Matrix: Water
Analysis Batch: 101138

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	0.270		mg/L		108	90 - 110	0	20

Lab Sample ID: MRL 380-101138/3
Matrix: Water
Analysis Batch: 101138

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.0500	0.0588		mg/L		118	50 - 150		

Lab Sample ID: 380-105721-J-1 MS
Matrix: Water
Analysis Batch: 101138

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
Sulfide	<0.050		0.250	0.251		mg/L		100	80 - 120		

Lab Sample ID: 380-105721-J-1 MSD
Matrix: Water
Analysis Batch: 101138

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		0.250	0.255		mg/L		102	80 - 120	2	20

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

GC/MS VOA

Analysis Batch: 100809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	524.2	
380-105515-2	TRAVEL BLANK	Total/NA	Water	524.2	
MB 380-100809/5	Method Blank	Total/NA	Water	524.2	
LCS 380-100809/2	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-100809/3	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-100809/4	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 101355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	524.2	
380-105515-2	TRAVEL BLANK	Total/NA	Water	524.2	
MB 380-101355/8	Method Blank	Total/NA	Water	524.2	
LCS 380-101355/5	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-101355/6	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-101355/3	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-101355/4	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 101656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	524.2	
380-105515-2	TRAVEL BLANK	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 100689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	525.2	
MB 380-100689/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-100689/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-100689/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-105515-1 MS	Aiea Wells P2	Total/NA	Water	525.2	
380-105515-1 DU	Aiea Wells P2	Total/NA	Water	525.2	

Analysis Batch: 100873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	525.2	100689
MB 380-100689/21-A	Method Blank	Total/NA	Water	525.2	100689
LCS 380-100689/23-A	Lab Control Sample	Total/NA	Water	525.2	100689
MRL 380-100689/22-A	Lab Control Sample	Total/NA	Water	525.2	100689
380-105515-1 MS	Aiea Wells P2	Total/NA	Water	525.2	100689
380-105515-1 DU	Aiea Wells P2	Total/NA	Water	525.2	100689

GC VOA

Analysis Batch: 466384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	8015B GRO LL	
380-105515-2	TRAVEL BLANK	Total/NA	Water	8015B GRO LL	
MB 570-466384/10	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-466384/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-466384/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-466384/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

GC VOA (Continued)

Analysis Batch: 466384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105582-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-105582-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 100683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	505	
MB 380-100683/14-A	Method Blank	Total/NA	Water	505	
LCS 380-100683/45-A	Lab Control Sample	Total/NA	Water	505	
LCS 380-100683/8-A	Lab Control Sample	Total/NA	Water	505	
LCSD 380-100683/46-A	Lab Control Sample Dup	Total/NA	Water	505	
MRL 380-100683/10-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-100683/11-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-100683/12-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-100683/13-A	Lab Control Sample	Total/NA	Water	505	
380-104825-BV-1-A MS	Matrix Spike	Total/NA	Water	505	
380-104825-BW-1-A MS	Matrix Spike	Total/NA	Water	505	
380-104825-BX-1-A MS	Matrix Spike	Total/NA	Water	505	
380-104835-BW-1-A MS	Matrix Spike	Total/NA	Water	505	
380-104835-BY-1-A MS	Matrix Spike	Total/NA	Water	505	

Prep Batch: 100691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	504.1	
380-105515-2	TRAVEL BLANK	Total/NA	Water	504.1	
MBL 380-100691/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-100691/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-100691/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-100691/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-103973-BY-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-103973-CA-1-A DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 100946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	504.1	100691
380-105515-2	TRAVEL BLANK	Total/NA	Water	504.1	100691
MBL 380-100691/4-A	Method Blank	Total/NA	Water	504.1	100691
LCS 380-100691/29-A	Lab Control Sample	Total/NA	Water	504.1	100691
MRL 380-100691/2-A	Lab Control Sample	Total/NA	Water	504.1	100691
MRL 380-100691/3-A	Lab Control Sample	Total/NA	Water	504.1	100691
380-103973-BY-1-A MS	Matrix Spike	Total/NA	Water	504.1	100691
380-103973-CA-1-A DU	Duplicate	Total/NA	Water	504.1	100691

Analysis Batch: 101259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	505	100683
MB 380-100683/14-A	Method Blank	Total/NA	Water	505	100683
LCS 380-100683/45-A	Lab Control Sample	Total/NA	Water	505	100683
LCS 380-100683/8-A	Lab Control Sample	Total/NA	Water	505	100683
LCSD 380-100683/46-A	Lab Control Sample Dup	Total/NA	Water	505	100683

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

GC Semi VOA (Continued)

Analysis Batch: 101259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-100683/10-A	Lab Control Sample	Total/NA	Water	505	100683
MRL 380-100683/11-A	Lab Control Sample	Total/NA	Water	505	100683
MRL 380-100683/12-A	Lab Control Sample	Total/NA	Water	505	100683
MRL 380-100683/13-A	Lab Control Sample	Total/NA	Water	505	100683
380-104825-BV-1-A MS	Matrix Spike	Total/NA	Water	505	100683
380-104825-BW-1-A MS	Matrix Spike	Total/NA	Water	505	100683
380-104825-BX-1-A MS	Matrix Spike	Total/NA	Water	505	100683
380-104835-BW-1-A MS	Matrix Spike	Total/NA	Water	505	100683
380-104835-BY-1-A MS	Matrix Spike	Total/NA	Water	505	100683

Prep Batch: 465129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	3510C	
MB 570-465129/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-465129/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-465129/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-465129/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-105582-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-105582-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 466159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	8015B	465129
MB 570-465129/1-A	Method Blank	Total/NA	Water	8015B	465129
LCS 570-465129/2-A	Lab Control Sample	Total/NA	Water	8015B	465129
LCSD 570-465129/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	465129
MRL 570-465129/4-A	Lab Control Sample	Total/NA	Water	8015B	465129
380-105582-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	465129
380-105582-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	465129

HPLC/IC

Analysis Batch: 100641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	300.0	
MB 380-100641/39	Method Blank	Total/NA	Water	300.0	
LCS 380-100641/42	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-100641/43	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-100641/40	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-100641/41	Lab Control Sample	Total/NA	Water	300.0	
380-105490-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
380-105490-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 100642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	300.0	
MB 380-100642/39	Method Blank	Total/NA	Water	300.0	
LCS 380-100642/42	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-100642/43	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-100642/40	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-100642/41	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

HPLC/IC (Continued)

Analysis Batch: 100642 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105490-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
380-105490-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 101162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	300.0	
MB 380-101162/5	Method Blank	Total/NA	Water	300.0	
LCS 380-101162/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-101162/7	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-101162/4	Lab Control Sample	Total/NA	Water	300.0	
380-105443-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
380-105443-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Analysis Batch: 100870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	200.8	
MBL 380-100870/95	Method Blank	Total/NA	Water	200.8	
LCS 380-100870/99	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-100870/100	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-100870/98	Lab Control Sample	Total/NA	Water	200.8	
380-105502-A-4 MS	Matrix Spike	Total/NA	Water	200.8	
380-105502-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 100935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	200.7 Rev 4.4	
MB 380-100935/237	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-100935/239	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-100935/242	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-100935/238	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-105503-Z-3 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-105503-Z-3 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Prep Batch: 107953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	245.1	
MB 810-107953/1-A	Method Blank	Total/NA	Water	245.1	
LCS 810-107953/3-A	Lab Control Sample	Total/NA	Water	245.1	
LLCS 810-107953/2-A	Lab Control Sample	Total/NA	Water	245.1	
810-112802-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
810-112802-K-1-C MS	Matrix Spike	Total/NA	Water	245.1	

Analysis Batch: 108055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	245.1	107953
MB 810-107953/1-A	Method Blank	Total/NA	Water	245.1	107953
LCS 810-107953/3-A	Lab Control Sample	Total/NA	Water	245.1	107953
LLCS 810-107953/2-A	Lab Control Sample	Total/NA	Water	245.1	107953
810-112802-K-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	107953

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

Metals (Continued)

Analysis Batch: 108055 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-112802-K-1-C MS	Matrix Spike	Total/NA	Water	245.1	107953

General Chemistry

Analysis Batch: 100754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 2540C	
MB 380-100754/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-100754/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-100754/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-100754/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-100754/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-105519-W-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 101125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 4500 F C	
MB 380-101125/1	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-101125/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-101125/4	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-101125/2	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-105429-O-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-105429-O-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 101138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 4500 S2 D	
MBL 380-101138/2	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-101138/5	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-101138/6	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-101138/3	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-105721-J-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
380-105721-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 101282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 2320B	
MB 380-101282/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-101282/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-101282/18	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-101282/4	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-101282/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-104951-BQ-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-104951-BQ-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-104951-BQ-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 101285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 2510B	
MB 380-101285/2	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-101285/4	Lab Control Sample	Total/NA	Water	SM 2510B	

QC Association Summary

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

Job ID: 380-105515-1
SDG: Quarterly

General Chemistry (Continued)

Analysis Batch: 101285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 380-101285/16	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-101285/3	Lab Control Sample	Total/NA	Water	SM 2510B	
380-104951-BQ-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 101288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-105515-1	Aiea Wells P2	Total/NA	Water	SM 4500 H+ B	
LCS 380-101288/5	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-101288/17	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-104951-BQ-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

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

Lab Chronicle

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

Job ID: 380-105515-1
SDG: Quarterly

Client Sample ID: Aiea Wells P2

Lab Sample ID: 380-105515-1

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	100809	P3EE	EA POM	07/25/24 22:42
Total/NA	Analysis	524.2		1	101355	P3EE	EA POM	07/31/24 00:12
Total/NA	Analysis	524.2		1	101656	UKCP	EA POM	07/31/24 00:12
Total/NA	Prep	525.2			100689	KRD3	EA POM	07/25/24 13:15
Total/NA	Analysis	525.2		1	100873	UPAC	EA POM	07/26/24 12:34
Total/NA	Analysis	8015B GRO LL		1	466384	A9VE	EET CAL 4	08/01/24 21:12
Total/NA	Prep	504.1			100691	LZ8Q	EA POM	07/25/24 15:00 - 07/25/24 16:00 ¹
Total/NA	Analysis	504.1		1	100946	LZ8Q	EA POM	07/26/24 06:46
Total/NA	Prep	505			100683	DR5R	EA POM	07/25/24 12:50 - 07/25/24 13:50 ¹
Total/NA	Analysis	505		1	101259	ULRL	EA POM	07/26/24 02:00
Total/NA	Prep	3510C			465129	H6FE	EET CAL 4	07/29/24 16:16
Total/NA	Analysis	8015B		1	466159	SP9M	EET CAL 4	08/01/24 12:33
Total/NA	Analysis	300.0		5	100641	T8BB	EA POM	07/25/24 01:44
Total/NA	Analysis	300.0		5	100642	T8BB	EA POM	07/25/24 01:44
Total/NA	Analysis	300.0		1	101162	UNJR	EA POM	07/27/24 04:56
Total/NA	Analysis	200.7 Rev 4.4		1	100935	YHP7	EA POM	07/25/24 20:20
Total/NA	Analysis	200.8		1	100870	AAE8	EA POM	07/25/24 19:34
Total/NA	Prep	245.1			107953	AC	EA SB	07/31/24 11:38
Total/NA	Analysis	245.1		1	108055	AC	EA SB	07/31/24 16:40
Total/NA	Analysis	SM 2320B		1	101282	GP4S	EA POM	07/29/24 17:23
Total/NA	Analysis	SM 2510B		1	101285	GP4S	EA POM	07/29/24 17:23
Total/NA	Analysis	SM 2540C		1	100754	UJRF	EA POM	07/25/24 14:13
Total/NA	Analysis	SM 4500 F C		1	101125	GP4S	EA POM	07/26/24 15:33
Total/NA	Analysis	SM 4500 H+ B		1	101288	GP4S	EA POM	07/29/24 17:23
Total/NA	Analysis	SM 4500 S2 D		1	101138	MQP5	EA POM	07/29/24 10:42

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-105515-2

Date Collected: 07/23/24 10:13

Matrix: Water

Date Received: 07/24/24 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	100809	P3EE	EA POM	07/25/24 23:05
Total/NA	Analysis	524.2		1	101355	P3EE	EA POM	07/31/24 00:35
Total/NA	Analysis	524.2		1	101656	UKCP	EA POM	07/31/24 00:35
Total/NA	Analysis	8015B GRO LL		1	466384	A9VE	EET CAL 4	08/01/24 23:08
Total/NA	Prep	504.1			100691	LZ8Q	EA POM	07/25/24 15:00 - 07/25/24 16:00 ¹
Total/NA	Analysis	504.1		1	100946	LZ8Q	EA POM	07/26/24 07:56

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

Accreditation/Certification Summary

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

Job ID: 380-105515-1
 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	Water	Polychlorinated biphenyls, Total
524.2		Water	1,3-Dichloropropene, Total
524.2		Water	2-Butanone (MEK)
524.2		Water	Acetone
524.2		Water	Bromodichloromethane
524.2		Water	Bromoethane
524.2		Water	Bromoform
524.2		Water	Chlorodibromomethane
524.2		Water	Chloroform (Trichloromethane)
524.2		Water	m,p Xylenes
524.2		Water	o-Xylene
525.2	525.2	Water	1-Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4'-DDT
525.2	525.2	Water	Acetochlor
525.2	525.2	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor

Accreditation/Certification Summary

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

Job ID: 380-105515-1
 SDG: Quarterly

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
SM 4500 S2 D		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
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	10-31-24
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

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	08-08-24
Arizona	State	AZ0432	07-26-25
Arkansas (DW)	State	EPA IN00035	06-30-25
California	State	2920	06-30-25
Colorado	State	IN00035	08-05-24
Connecticut	State	PH-0132	03-31-26
Delaware (DW)	State	IN00035	06-30-25
Florida	NELAP	E87775	06-30-25
Georgia (DW)	State	929	06-30-25
Guam	State	23-011R	07-15-25
Hawaii	State	IN035	06-30-25
Idaho (DW)	State	IN00035	12-31-24
IL Dept. of Public Health (Micro)	State	17767	06-30-25
Illinois	NELAP	200001	09-19-24
Indiana	State	C-71-01	12-31-25
Indiana (Micro)	State	M-76-07	12-31-25
Iowa	State	IA Lab #098	08-01-24
Kansas	NELAP	E-10233	10-31-24
Kentucky (DW)	State	KY90056	12-31-24
Louisiana (DW)	State	LA014	12-31-24
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-25

Accreditation/Certification Summary

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

Job ID: 380-105515-1
 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
Massachusetts	State	M-IN035	06-30-25
MI - RadChem Recognition	State	9926	03-22-25
Michigan	State	9926	03-22-25
Minnesota	NELAP	1989807	12-31-24
Mississippi	State	IN00035	06-30-25
Missouri	State	880	09-30-24
Montana (DW)	State	CERT0026	01-01-25
Nebraska	State	NE-OS-05-04	06-30-25
Nevada	State	IN000352024-01	07-31-24
New Hampshire	NELAP	2124	11-05-24
New Jersey	NELAP	IN598	06-30-25
New Mexico	State	IN00035	06-30-25
New York	NELAP	11398	04-01-25
North Carolina (DW)	State	18700	08-08-24
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	08-31-24
Oregon	NELAP	4156	09-16-24
Pennsylvania	NELAP	68-00466	04-30-25
Puerto Rico	State	IN00035	04-01-25
Rhode Island	State	LAO00343	12-30-24
South Carolina	State	95005001	06-30-24 *
South Dakota (DW)	State	IN00035	06-30-25
Tennessee	State	TN02973	06-30-25
Texas	NELAP	T104704187-22-16	12-31-24
Texas	TCEQ Water Supply	TX207	06-30-25
USEPA Reg X SDWA	US Federal Programs	IN00035	08-24-24
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25
Utah	NELAP	IN00035	07-31-24
Vermont	State	VT-8775	08-01-24
Virginia	NELAP	460275	07-31-24
Washington	State	C837	01-01-25
West Virginia (DW)	State	9927 C	01-31-25
Wisconsin	State	999766900	08-31-24
Wisconsin (Micro)	State	10121	12-31-24
Wyoming	State	8TMS-L	06-30-25

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

Method Summary

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

Job ID: 380-105515-1
SDG: Quarterly

Method	Method Description	Protocol	Laboratory
524.2	Total Trihalomethanes	EPA-DW	EA POM
524.2	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA POM
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	EA POM
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
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
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, Organochlorine Pesticides/PCBs	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
None	Autocomplete Prep - Metals - No Digestion required	None	EA POM

Protocol References:

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: 380-105515-1
SDG: Quarterly

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-105515-1	Aiea Wells P2	Water	07/23/24 10:13	07/24/24 09:37
380-105515-2	TRAVEL BLANK	Water	07/23/24 10:13	07/24/24 09:37

- 1
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- 13
- 14
- 15
- 16

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

Chain of Custody Record



eurofins

Client Information Company: Fenstermacher Address: 630 South Beretania Street, Chemistry Lab, Honolulu, HI 96843 Phone: 808-748-5091 (tel) Email: fenstermacher@hbws.org Project Name: RED-HILL Site:		Lab PM: Arada, Rachelle E-Mail: Rachelle.Arada@eurofins.com PWSID:		Carmer Tracking No(s): 380-105515 COC State of Origin:		COC No: Page: Page 1 of 2 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> No PO #: C20525101 exp 05312023 WO #:		Analysis Requested 2540C_Caled Total dissolved Solids (TDS) - 2007_2008 - 2320B_2510B_SM4500_H+ 5041_PREC_505_LL_PREC - Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		SUBCONTRACT 625 PAH Physis LL (EAL) + TICs SUBCONTRACT 625 Base Neutral LL (EAL) Physis SUBCONTRACT 625 Acid LL (EAL) Physis 8015B_GRO_LL (MOD) GRO		Preservation Codes A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amichlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:	
Sample Identification Aiea Wells P2 Travel Blank		Sample Date: 23 Jul-2024 Sample Time: 10:03 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastebot, BT=Tissue, A=air): Water		525 2_PREC_525plus PLUS TICs - 524 2_Pres_PREC_524 2_SIM_PREC - SM4500_S2_D Sulfide Total 300_OF_28D_B 300_OF_28D_PREC 300_OF_48H_PREC 4500_F_C 2451 Local Method -		Total Number of containers Special Instructions/Note	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested I II III IV Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/OC Requirements Memo of Shipment: 7775 3174 3230 Date/Time: 07/24/2024 09:57 Company: HBWS	
Empty Kit Relinquished by:		Date: 23 Jul 2024 10:00 Company: HBWS		Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No:		Other Temperature, °C and Other Remarks: ASIA 2.0°-0.1° 1.9° 2.3°-0.1° 2.2°		Ver: 01.16.2019	

Chain of Custody Record



Client Information (Sub Contract Lab) Shipping/Receiving Company: Eurofins Environment Testing Southwest Address: 2841 Dow Avenue, Suite 100 City: Tustin State, Zip: CA, 92780 Phone: 714-895-5494 (Tel) Email: Project Name: RED-HILL Site: Honolulu BWS Sites		Lab PM: Arada, Rachelle E-Mail: Rachelle.Arada@et.eurofins.com State: Hawaii Accreditations Required (See note): State Hawaii		Carrier Tracking No(s): 380-140541 1 Page: Page 1 of 1 Job #: 380-105515-1 Preservation Codes:	
Due Date Requested: 8/13/2024 TAT Requested (days):		Analysis Requested			
PD #: WO #: Project #: SSOW#:	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	80158_DRO_LL_C9/3510C_LL_HNL_Ranges: C10- C24/C24-C36/C9-C18 80158_GRO_LL/6030C (MOD) GRO 8251_SIM/25_Prep (MOD) Extended List	80158_Dat/Ethanol X X X X	Sample Type (C=Comp, G=grab) Preservation Code:	Matrix (Water, Swab, Composite, etc.) Water Water
Sample Date Sample Time Sample ID (Lab ID)	Sample Date Sample Time Sample ID (Lab ID)	Sample Date Sample Time Sample ID (Lab ID)	Sample Date Sample Time Sample ID (Lab ID)	Sample Date Sample Time Sample ID (Lab ID)	Sample Date Sample Time Sample ID (Lab ID)
Alea Wells P2 (380-105515-1) TRAVEL BLANK (380-105515-2)	7/23/24 10:13 Hawaiian	7/23/24 10:13 Hawaiian	7/23/24 10:13 Hawaiian	7/23/24 10:13 Hawaiian	7/23/24 10:13 Hawaiian
Sample Identification - Client ID (Lab ID)		Total Number of Containers: 14 MRLs are needed. Initial volume (500ml) and final volume (2ml). MRLs are needed.			
Special Instructions/Note: MRLs are needed.		MRLs are needed.			
Other:		Other:			



380-105515 Chain of Custody

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 7/25/24 12:30 Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Special Instructions/QC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Cooler Temperature(s) °C and Other Remarks: 15/15 seal



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-105515-1

SDG Number: Quarterly

Login Number: 105515

List Number: 1

Creator: Gerfen, Chris

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-105515-1

SDG Number: Quarterly

Login Number: 105515

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 07/25/24 02:53 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	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-105515-1

SDG Number: Quarterly

Login Number: 105515

List Number: 3

Creator: Williams, Kameron

List Source: Eurofins Eaton Analytical South Bend

List Creation: 07/26/24 11:54 AM

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	False	Client provided containers

