

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Quarterly

JOB NUMBER

380-103673-1

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: 380-103673-1
SDG: Quarterly

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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
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.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

Definitions/Glossary

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

Job ID: 380-103673-1
SDG: Quarterly

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-103673-1

Job ID: 380-103673-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-103673-1

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 7/11/2024 10:35 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 2.4°C and 2.5°C.

Receipt Exceptions

One of the six 524.2 vials from site Halawa Wells Units 1&2 P1 was received broken.

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 625.1_SIM: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-460222 and analytical batch 570-465376 recovered outside control limits for the following analyte(s): 3-Nitroaniline, 4-Chloroaniline, Aniline and Benzidine. 3-Nitroaniline, 4-Chloroaniline, Aniline and Benzidine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-460222 and analytical batch 570-465376 recovered outside control limits for the following analytes: 3-Nitroaniline and Aniline.

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

Method 8015B_DRO_LL_CS: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-460900. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

GC Semi VOA

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.

HPLC/IC

Method 300_OF_48H_PREC: The following sample was diluted for Nitrite as N to prevent detector saturation due to high conductivity: HALAWA WELLS UNITS 1 & 2 P1 (380-103673-1). Elevated reporting limits (RLs) are provided.

Eurofins Eaton Analytical Pomona

Case Narrative

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

Job ID: 380-103673-1

Job ID: 380-103673-1 (Continued)

Eurofins Eaton Analytical Pomona

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

Metals

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

General Chemistry

Method SM4500_S2_D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 380-98842 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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: 380-103673-1
 SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.048		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.014		0.0097	ug/L	1		525.2	Total/NA
Chlordane (n.o.s.)	0.24		0.10	ug/L	1		505	Total/NA
Bromide	700		25	ug/L	5		300.0	Total/NA
Chloride	190		5.0	mg/L	10		300.0	Total/NA
Nitrate as N	1.6		0.10	mg/L	2		300.0	Total/NA
Sulfate	44		0.50	mg/L	2		300.0	Total/NA
Calcium	37		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	34		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.3		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	75		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.3		1.0	ug/L	1		200.8	Total/NA
Copper	4.7		2.0	ug/L	1		200.8	Total/NA
Alkalinity	66		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	66		2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	850		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	580		20	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

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: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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			07/16/24 09:01	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			07/17/24 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		07/17/24 17:49	1
4-Bromofluorobenzene (Surr)	95		70 - 130		07/17/24 17:49	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		07/17/24 17:49	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			07/16/24 09:01	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:01	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/16/24 09:01	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:01	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/16/24 09:01	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/16/24 18:41	1
Acetone	<500		500	ug/L			07/16/24 09:01	1
Benzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromobenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromochloromethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromodichloromethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromoethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromoform	<0.50		0.50	ug/L			07/16/24 09:01	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/16/24 09:01	1
Carbon disulfide	<0.50		0.50	ug/L			07/16/24 09:01	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/16/24 09:01	1
Chlorobenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Chloroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/16/24 09:01	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/16/24 09:01	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:01	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:01	1
Dibromomethane	<0.50		0.50	ug/L			07/16/24 09:01	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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			07/16/24 09:01	1
Dichloromethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Diisopropyl ether	<3.0		3.0	ug/L			07/16/24 09:01	1
Ethylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/16/24 09:01	1
Isopropylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
m,p-Xylenes	<0.50		0.50	ug/L			07/16/24 09:01	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/16/24 09:01	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/16/24 09:01	1
Naphthalene	<0.50		0.50	ug/L			07/16/24 09:01	1
n-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
N-Propylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 09:01	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/16/24 09:01	1
o-Xylene	<0.50		0.50	ug/L			07/16/24 09:01	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 09:01	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/16/24 09:01	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/16/24 09:01	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Styrene	<0.50		0.50	ug/L			07/16/24 09:01	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/16/24 09:01	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/16/24 09:01	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:01	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/16/24 09:01	1
Toluene	<0.50		0.50	ug/L			07/16/24 09:01	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:01	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:01	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/16/24 09:01	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/16/24 09:01	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/16/24 09:01	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/16/24 09:01	1
Xylenes, Total	<0.50		0.50	ug/L			07/16/24 09:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.70	T J	ug/L		1.84	N/A		07/16/24 18:41	1
Hydrogen chloride	0.67	T J N	ug/L		10.23	7647-01-0		07/16/24 18:41	1
Unknown	0.85	T J	ug/L		10.67	N/A		07/16/24 18:41	1
Unknown	0.58	T J	ug/L		11.01	N/A		07/16/24 18:41	1
Tentatively Identified Compound	None		ug/L			N/A		07/16/24 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		07/16/24 09:01	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		07/16/24 18:41	1
4-Bromofluorobenzene (Surr)	97		70 - 130		07/16/24 09:01	1
4-Bromofluorobenzene (Surr)	105		70 - 130		07/16/24 18:41	1
Toluene-d8 (Surr)	96		70 - 130		07/16/24 09:01	1
Toluene-d8 (Surr)	100		70 - 130		07/16/24 18:41	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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		07/15/24 11:00	07/16/24 12:48	1
2,4'-DDE	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
2,4'-DDT	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
4,4'-DDD	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
4,4'-DDE	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
4,4'-DDT	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Acenaphthene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Acenaphthylene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Acetochlor	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Alachlor	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
alpha-BHC	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
alpha-Chlordane	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Anthracene	<0.019		0.019	ug/L		07/15/24 11:00	07/16/24 12:48	1
Atrazine	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Benz(a)anthracene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Benzo[a]pyrene	<0.019		0.019	ug/L		07/15/24 11:00	07/16/24 12:48	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		07/15/24 11:00	07/16/24 12:48	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		07/15/24 11:00	07/16/24 12:48	1
beta-BHC	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		07/15/24 11:00	07/16/24 12:48	1
Aldrin	<0.0097		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Bromacil	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Butachlor	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Butylbenzylphthalate	<0.48		0.48	ug/L		07/15/24 11:00	07/16/24 12:48	1
Chlorobenzilate	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Chloroneb	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Chlorpyrifos	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Chrysene	<0.019		0.019	ug/L		07/15/24 11:00	07/16/24 12:48	1
delta-BHC	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		07/15/24 11:00	07/16/24 12:48	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Dieldrin	0.048		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Diethylphthalate	<0.48		0.48	ug/L		07/15/24 11:00	07/16/24 12:48	1
Dimethylphthalate	<0.48		0.48	ug/L		07/15/24 11:00	07/16/24 12:48	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		07/15/24 11:00	07/16/24 12:48	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Endosulfan sulfate	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Endrin	<0.0097		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Endrin aldehyde	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
EPTC	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Fluoranthene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Fluorene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	<0.0097		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
gamma-Chlordane	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Heptachlor	<0.0097		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Heptachlor epoxide (isomer B)	0.014		0.0097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Hexachlorobenzene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Isophorone	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Malathion	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Methoxychlor	<0.048	^3+	0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Metolachlor	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Molinate	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Naphthalene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Parathion	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Phenanthrene	<0.039		0.039	ug/L		07/15/24 11:00	07/16/24 12:48	1
Propachlor	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Pyrene	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Simazine	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Terbacil	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Terbutylazine	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Thiobencarb	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		07/15/24 11:00	07/16/24 12:48	1
trans-Nonachlor	<0.048		0.048	ug/L		07/15/24 11:00	07/16/24 12:48	1
Trifluralin	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
1-Methylnaphthalene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1
2-Methylnaphthalene	<0.097		0.097	ug/L		07/15/24 11:00	07/16/24 12:48	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/15/24 11:00	07/16/24 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	94		70 - 130	07/15/24 11:00	07/16/24 12:48	1
Perylene-d12	94		70 - 130	07/15/24 11:00	07/16/24 12:48	1
Triphenylphosphate	104		70 - 130	07/15/24 11:00	07/16/24 12:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
2,4,5-Trichlorophenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
2,4,6-Trichlorophenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
2,4-Dichlorophenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
2,4-Dinitrophenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
2,6-Dichlorophenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Chloronaphthalene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Chlorophenol	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Methylnaphthalene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Methylphenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Nitroaniline	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
2-Nitrophenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
3/4-Methylphenol	<1.9		1.9	ug/L		07/15/24 05:12	08/02/24 13:02	1
3-Nitroaniline	<4.8	*- *1	4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
4,6-Dinitro-2-methylphenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Bromophenyl phenyl ether	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Chloro-3-methylphenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Chloroaniline	<4.8	*-	4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Chlorophenyl phenyl ether	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Nitroaniline	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
4-Nitrophenol	<4.8		4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
Acenaphthene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Acenaphthylene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Aniline	<0.19	*- *1	0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Anthracene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzidine	<4.8	*-	4.8	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzo[a]anthracene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzo[a]pyrene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzoic acid	<9.6		9.6	ug/L		07/15/24 05:12	08/02/24 13:02	1
Benzyl alcohol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
Bis(2-chloroethoxy)methane	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Bis(2-chloroethyl)ether	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
bis (2-Chloroisopropyl) ether	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Chrysene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Dibenzofuran	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Fluorene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Hexachloroethane	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Naphthalene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Nitrobenzene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
N-Nitrosodi-n-propylamine	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
N-Nitrosodiphenylamine	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Pentachlorophenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
Phenanthrene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1
Phenol	<0.96		0.96	ug/L		07/15/24 05:12	08/02/24 13:02	1
Pyrene	<0.19		0.19	ug/L		07/15/24 05:12	08/02/24 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	68		28 - 127	07/15/24 05:12	08/02/24 13:02	1
2-Fluorobiphenyl (Surr)	70		31 - 120	07/15/24 05:12	08/02/24 13:02	1
2-Fluorophenol (Surr)	48		17 - 120	07/15/24 05:12	08/02/24 13:02	1
Nitrobenzene-d5 (Surr)	78		27 - 120	07/15/24 05:12	08/02/24 13:02	1
Phenol-d6 (Surr)	31		10 - 120	07/15/24 05:12	08/02/24 13:02	1
p-Terphenyl-d14 (Surr)	73		45 - 120	07/15/24 05:12	08/02/24 13:02	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2-Hexene, 3,4,4-trimethyl-	23	T J N	ug/L		3.03	53941-19-8	07/15/24 05:12	08/02/24 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		33 - 139				07/15/24 05:12	08/02/24 20:04	1
2-Fluorobiphenyl (Surr)	73		33 - 126				07/15/24 05:12	08/02/24 20:04	1
2-Fluorophenol (Surr)	40		12 - 120				07/15/24 05:12	08/02/24 20:04	1
Nitrobenzene-d5 (Surr)	68		36 - 120				07/15/24 05:12	08/02/24 20:04	1
Phenol-d6 (Surr)	25		10 - 120				07/15/24 05:12	08/02/24 20:04	1
p-Terphenyl-d14 (Surr)	78		47 - 131				07/15/24 05:12	08/02/24 20:04	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			07/17/24 00:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		38 - 134				07/17/24 00:02	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		07/12/24 11:30	07/13/24 00:40	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		07/12/24 11:30	07/13/24 00:40	1
1,2-Dibromoethane	<0.010		0.010	ug/L		07/12/24 11:30	07/13/24 00:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	98		60 - 140			07/12/24 11:30	07/13/24 00:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.51		0.51	ug/L		07/16/24 14:20	07/16/24 21:31	1
Chlordane (n.o.s.)	0.24		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1016	<0.071		0.071	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1221	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1232	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1242	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1248	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1254	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
PCB-1260	<0.071		0.071	ug/L		07/16/24 14:20	07/16/24 21:31	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 21:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		70 - 130			07/16/24 14:20	07/16/24 21:31	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		07/16/24 16:05	07/20/24 14:34	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		07/16/24 16:05	07/20/24 14:34	1
C8-C18	<26		26	ug/L		07/16/24 16:05	07/20/24 14:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 130			07/16/24 16:05	07/20/24 14:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			07/15/24 20:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	86		54 - 120				07/15/24 20:19	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	700		25	ug/L			07/18/24 03:51	5
Chloride	190		5.0	mg/L			07/12/24 08:54	10
Nitrate as N	1.6		0.10	mg/L			07/12/24 08:38	2
Nitrite as N	<0.10		0.10	mg/L			07/12/24 08:38	2
Sulfate	44		0.50	mg/L			07/12/24 08:38	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	37		1.0	mg/L			07/15/24 23:33	1
Magnesium	34		0.10	mg/L			07/15/24 23:33	1
Potassium	4.3		1.0	mg/L			07/15/24 23:33	1
Sodium	75		1.0	mg/L			07/15/24 23:33	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			07/12/24 18:43	1
Arsenic	<1.0		1.0	ug/L			07/12/24 18:43	1
Beryllium	<1.0		1.0	ug/L			07/12/24 18:43	1
Cadmium	<0.50		0.50	ug/L			07/12/24 18:43	1
Chromium	2.3		1.0	ug/L			07/12/24 18:43	1
Copper	4.7		2.0	ug/L			07/12/24 18:43	1
Lead	<0.50		0.50	ug/L			07/12/24 18:43	1
Nickel	<5.0		5.0	ug/L			07/12/24 18:43	1
Selenium	<5.0		5.0	ug/L			07/12/24 18:43	1
Silver	<0.50	F1	0.50	ug/L			07/12/24 18:43	1
Thallium	<1.0		1.0	ug/L			07/12/24 18:43	1
Zinc	<20		20	ug/L			07/12/24 18:43	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		07/15/24 12:54	07/15/24 17:55	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	66		2.0	mg/L			07/12/24 14:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	66		2.0	mg/L			07/12/24 14:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.0		2.0	mg/L			07/12/24 14:29	1
Specific Conductance (SM 2510B)	850		2.0	umhos/cm			07/12/24 14:29	1
Total Dissolved Solids (SM 2540C)	580		20	mg/L			07/16/24 14:59	1
Fluoride (SM 4500 F C)	<0.050		0.050	mg/L			07/12/24 18:18	1
pH (SM 4500 H+ B)	7.6	HF		SU			07/12/24 14:29	1
Sulfide (SM 4500 S2 D)	<0.050	F1	0.050	mg/L			07/12/24 15:49	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Date Collected: 07/10/24 10:14

Matrix: Water

Date Received: 07/11/24 10:35

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			07/16/24 09:24	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			07/17/24 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		07/17/24 18:12	1
4-Bromofluorobenzene (Surr)	99		70 - 130		07/17/24 18:12	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		07/17/24 18:12	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			07/16/24 09:24	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:24	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:24	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 09:24	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/16/24 09:24	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/16/24 19:03	1
Acetone	<500		500	ug/L			07/16/24 09:24	1
Benzene	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromobenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromochloromethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromodichloromethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromoform	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/16/24 09:24	1
Carbon disulfide	<0.50		0.50	ug/L			07/16/24 09:24	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/16/24 09:24	1
Chlorobenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Chloroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/16/24 09:24	1
Dichloromethane	<0.50		0.50	ug/L			07/16/24 09:24	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:24	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:24	1
Dibromomethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Ethylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1

Client Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Date Collected: 07/10/24 10:14

Matrix: Water

Date Received: 07/11/24 10:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.50		0.50	ug/L			07/16/24 09:24	1
Isopropylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
m,p-Xylenes	<0.50		0.50	ug/L			07/16/24 09:24	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/16/24 09:24	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/16/24 09:24	1
Naphthalene	<0.50		0.50	ug/L			07/16/24 09:24	1
n-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
N-Propylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/16/24 09:24	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 09:24	1
o-Xylene	<0.50		0.50	ug/L			07/16/24 09:24	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 09:24	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/16/24 09:24	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/16/24 09:24	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
Styrene	<0.50		0.50	ug/L			07/16/24 09:24	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/16/24 09:24	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/16/24 09:24	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/16/24 09:24	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/16/24 09:24	1
Toluene	<0.50		0.50	ug/L			07/16/24 09:24	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/16/24 09:24	1
Xylenes, Total	<0.50		0.50	ug/L			07/16/24 09:24	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 09:24	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 09:24	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/16/24 09:24	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/16/24 09:24	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/16/24 09:24	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Bromoethane	<0.50		0.50	ug/L			07/16/24 09:24	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/16/24 09:24	1
Diisopropyl ether	<3.0		3.0	ug/L			07/16/24 09:24	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Acetaldehyde	2.4	T J N	ug/L		1.62	75-07-0		07/16/24 19:03	1
Unknown	7.7	T J	ug/L		9.18	N/A		07/16/24 09:24	1
Furfural	4.5	T J N	ug/L		10.11	98-01-1		07/16/24 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		07/16/24 09:24	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		07/16/24 19:03	1
4-Bromofluorobenzene (Surr)	102		70 - 130		07/16/24 09:24	1
4-Bromofluorobenzene (Surr)	107		70 - 130		07/16/24 19:03	1
Toluene-d8 (Surr)	97		70 - 130		07/16/24 09:24	1
Toluene-d8 (Surr)	101		70 - 130		07/16/24 19:03	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			07/16/24 22:44	1

Client Sample Results

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

Job ID: 380-103673-1
 SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Date Collected: 07/10/24 10:14

Matrix: Water

Date Received: 07/11/24 10:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		07/16/24 22:44	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		07/18/24 15:00	07/19/24 05:01	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		07/18/24 15:00	07/19/24 05:01	1
1,2-Dibromoethane	<0.010		0.010	ug/L		07/18/24 15:00	07/19/24 05:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	96		60 - 140	07/18/24 15:00	07/19/24 05:01	1



Action Limit Summary

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

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)	0.014		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	^3+	ug/L		40		525.2	Total/NA
Simazine	<0.048		ug/L		4		525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L		0.2		625.1 SIM	Total/NA
Pentachlorophenol	<0.96		ug/L		1		625.1 SIM	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.51		ug/L		3		505	Total/NA
Chlordane (n.o.s.)	0.24		ug/L		2		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA
Chloride	190		mg/L			250	300.0	Total/NA
Nitrate as N	1.6		mg/L		10		300.0	Total/NA
Nitrite as N	<0.10		mg/L		1		300.0	Total/NA
Sulfate	44		mg/L			250	300.0	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(Continued)

Lab Sample ID: 380-103673-1

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
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
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	4.7		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	F1	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	580		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA
pH	7.6	HF	SU			6.5	SM 4500 H+ B	Total/NA

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
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
Dichloromethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70	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
Xylenes, Total	<0.50		ug/L	10000	10000	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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: TRAVEL BLANK (Continued)

Lab Sample ID: 380-103673-2

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	96	95	100

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
380-103673-2	TRAVEL BLANK	97	99	100
LCS 380-99491/2	Lab Control Sample	98	95	103
LCS 380-99491/3	Lab Control Sample Dup	100	96	103
MB 380-99491/5	Method Blank	98	96	101

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (50-150)	BFB (50-150)	DCA (50-150)
MRL 380-99491/4	Lab Control Sample	98	96	100

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: Drinking 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)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	106	97	96
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	107	105	100

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

Surrogate Summary

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)
380-103673-2	TRAVEL BLANK	110	102	97
380-103673-2	TRAVEL BLANK	105	107	101
LCS 380-99042/5	Lab Control Sample	96	98	94
LCS 380-99090/3	Lab Control Sample	104	108	86
LCS 380-99198/3	Lab Control Sample	108	108	104
LCSD 380-99042/6	Lab Control Sample Dup	102	100	95
LCSD 380-99090/4	Lab Control Sample Dup	100	104	87
LCSD 380-99198/4	Lab Control Sample Dup	105	108	105
MB 380-99042/8	Method Blank	100	99	109
MB 380-99090/5	Method Blank	100	110	93
MB 380-99198/8	Method Blank	107	107	101
MRL 380-99042/3	Lab Control Sample	97	99	117
MRL 380-99042/4	Lab Control Sample	100	97	106
MRL 380-99198/5	Lab Control Sample	108	107	104
MRL 380-99198/6	Lab Control Sample	105	108	102

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: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	94	94	104
380-103673-1 DU	HALAWA WELLS UNITS 1 & 2 P1	93	94	102

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-103652-O-1-A MS	Matrix Spike	94	96	108
LCS 380-99014/23-A	Lab Control Sample	101	101	105
LCSD 380-99014/24-A	Lab Control Sample Dup	100	95	102
MB 380-99014/21-A	Method Blank	92	90	107
MRL 380-99014/22-A	Lab Control Sample	93	91	103

Surrogate Legend

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

Surrogate Summary

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

Job ID: 380-103673-1
SDG: Quarterly

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	58	73	40	68	25	78

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
MB 570-460222/1-A	Method Blank	45	59	41	53	26	71

Surrogate Legend

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

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	68	70	48	78	31	73

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
LCS 570-460222/2-A	Lab Control Sample	73	70	53	69	38	73
LCS 570-460222/3-A	Lab Control Sample Dup	81	71	51	62	37	80
MB 570-460222/1-A	Method Blank	70	61	53	68	37	80

Surrogate Legend

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Surrogate Summary

Client: City & County of Honolulu

Job ID: 380-103673-1

Project/Site: RED-HILL

SDG: Quarterly

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

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	78

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-103360-C-3 MS	Matrix Spike	95
380-103360-C-3 MSD	Matrix Spike Duplicate	100
380-103673-2	TRAVEL BLANK	84
LCS 570-460706/4	Lab Control Sample	99
LCS 570-460706/5	Lab Control Sample Dup	101
MB 570-460706/6	Method Blank	97
MRL 570-460706/3	Lab Control Sample	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	98

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-102882-B-2-A DU	Duplicate	97
380-102882-D-1-A MS	Matrix Spike	87
380-103673-2	TRAVEL BLANK	96
380-103828-AP-1-A MS	Matrix Spike	91
380-104331-C-1-A DU	Duplicate	97
LCS 380-98731/38-A	Lab Control Sample	96
LCS 380-99699/29-A	Lab Control Sample	93

Surrogate Summary

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

Job ID: 380-103673-1
SDG: Quarterly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
MBL 380-98731/13-A	Method Blank	104
MBL 380-99699/4-A	Method Blank	97
MRL 380-98731/11-A	Lab Control Sample	101
MRL 380-98731/12-A	Lab Control Sample	101
MRL 380-99699/2-A	Lab Control Sample	94
MRL 380-99699/3-A	Lab Control Sample	100

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	102

Surrogate Legend

TCX = Tetrachloro-m-xylene

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-102321-AN-1-A MS	Matrix Spike	105
380-102321-AP-1-A MS	Matrix Spike	99
380-102326-AL-1-A MS	Matrix Spike	103
380-102326-AR-1-A MS	Matrix Spike	104
LCS 380-99012/31-A	Lab Control Sample	103
LCSD 380-99012/32-A	Lab Control Sample Dup	104
MB 380-99012/3-A	Method Blank	101
MRL 380-99012/1-A	Lab Control Sample	103
MRL 380-99012/2-A	Lab Control Sample	101

Surrogate Legend

TCX = Tetrachloro-m-xylene

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	105

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Surrogate Summary

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

Job ID: 380-103673-1
SDG: Quarterly

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)
LCS 570-460900/2-A	Lab Control Sample	104
LCSD 570-460900/3-A	Lab Control Sample Dup	106
MB 570-460900/1-A	Method Blank	100
MRL 570-460900/4-A	Lab Control Sample	98

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP2 (54-120)
380-103673-1	HALAWA WELLS UNITS 1 & 2 F	86

Surrogate Legend

HF2PP = Hexafluoro-2-propanol (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP2 (54-120)
380-103361-AI-1 MS	Matrix Spike	98
380-103361-AI-1 MSD	Matrix Spike Duplicate	105
LCS 570-460498/4	Lab Control Sample	110
LCSD 570-460498/5	Lab Control Sample Dup	109
MB 570-460498/3	Method Blank	96

Surrogate Legend

HF2PP = Hexafluoro-2-propanol (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP1 (54-120)
MRL 570-460498/6	Lab Control Sample	91

Surrogate Legend

HF2PP = Hexafluoro-2-propanol (Surr)

QC Sample Results

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Lab Sample ID: MB 380-99042/8
Matrix: Water
Analysis Batch: 99042

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			07/15/24 16:25	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,1-Dichlorethylene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/15/24 16:25	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/15/24 16:25	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/15/24 16:25	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/15/24 16:25	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/15/24 16:25	1
Acetone	<500		500	ug/L			07/15/24 16:25	1
Benzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromobenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromochloromethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromodichloromethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromoform	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/15/24 16:25	1
Carbon disulfide	<0.50		0.50	ug/L			07/15/24 16:25	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/15/24 16:25	1
Chlorobenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Chloroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/15/24 16:25	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/15/24 16:25	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/15/24 16:25	1
Dibromomethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Dichloromethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Ethylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/15/24 16:25	1
Isopropylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
m,p-Xylenes	<0.50		0.50	ug/L			07/15/24 16:25	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/15/24 16:25	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/15/24 16:25	1
Naphthalene	<0.50		0.50	ug/L			07/15/24 16:25	1
n-Butylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
N-Propylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/15/24 16:25	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/15/24 16:25	1
o-Xylene	<0.50		0.50	ug/L			07/15/24 16:25	1

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 380-99042/8
Matrix: Water
Analysis Batch: 99042

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
p-Chlorotoluene	<0.50		0.50	ug/L			07/15/24 16:25	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/15/24 16:25	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/15/24 16:25	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Styrene	<0.50		0.50	ug/L			07/15/24 16:25	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/15/24 16:25	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/15/24 16:25	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/15/24 16:25	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/15/24 16:25	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/15/24 16:25	1
Toluene	<0.50		0.50	ug/L			07/15/24 16:25	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/15/24 16:25	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/15/24 16:25	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/15/24 16:25	1
Bromoethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/15/24 16:25	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/15/24 16:25	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/15/24 16:25	1
Diisopropyl ether	<3.0		3.0	ug/L			07/15/24 16:25	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/15/24 16:25	1
Xylenes, Total	<0.50		0.50	ug/L			07/15/24 16:25	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		07/15/24 16:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		07/15/24 16:25	1
4-Bromofluorobenzene (Surr)	99		70 - 130		07/15/24 16:25	1
Toluene-d8 (Surr)	109		70 - 130		07/15/24 16:25	1

Lab Sample ID: LCS 380-99042/5
Matrix: Water
Analysis Batch: 99042

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	4.86		ug/L		97	70 - 130
1,1,1-Trichloroethane	5.00	4.05		ug/L		81	70 - 130
1,1,1,2,2-Tetrachloroethane	5.00	4.99		ug/L		100	70 - 130
1,1,2-Trichloroethane	5.00	5.06		ug/L		101	70 - 130
1,1-Dichloroethane	5.00	4.50		ug/L		90	70 - 130
1,1-Dichloroethylene	5.00	4.18		ug/L		84	70 - 130
1,1-Dichloropropene	5.00	4.24		ug/L		85	70 - 130
1,2,3-Trichlorobenzene	5.00	4.88		ug/L		98	70 - 130
1,2,3-Trichloropropane	5.00	4.98		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	5.00	4.77		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	5.00	5.10		ug/L		102	70 - 130
1,2-Dichloroethane	5.00	4.78		ug/L		96	70 - 130
1,2-Dichloropropane	5.00	4.10		ug/L		82	70 - 130

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99042/5
Matrix: Water
Analysis Batch: 99042

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	5.03		ug/L		101	70 - 130
1,3-Dichloropropane	5.00	5.26		ug/L		105	70 - 130
2,2-Dichloropropane	5.00	4.32		ug/L		86	70 - 130
2-Butanone (MEK)	50.0	45.4		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	40.2		ug/L		80	70 - 130
Acetone	50.0	41.0	J	ug/L		82	70 - 130
Benzene	5.00	4.66		ug/L		93	70 - 130
Bromobenzene	5.00	4.72		ug/L		94	70 - 130
Bromochloromethane	5.00	4.74		ug/L		95	70 - 130
Bromodichloromethane	5.00	3.98		ug/L		80	70 - 130
Bromoform	5.00	3.94		ug/L		79	70 - 130
Bromomethane (Methyl Bromide)	5.00	4.28		ug/L		86	70 - 130
Carbon disulfide	5.00	3.90		ug/L		78	70 - 130
Carbon tetrachloride	5.00	4.08		ug/L		82	70 - 130
Chlorobenzene	5.00	5.16		ug/L		103	70 - 130
Chlorodibromomethane	5.00	4.29		ug/L		86	70 - 130
cis-1,3-Dichloropropene	5.00	4.22		ug/L		84	70 - 130
Dichloromethane	5.00	4.50		ug/L		90	70 - 130
Ethylbenzene	5.00	4.94		ug/L		99	70 - 130
Hexachlorobutadiene	5.00	4.50		ug/L		90	70 - 130
Isopropylbenzene	5.00	4.71		ug/L		94	70 - 130
m,p-Xylenes	10.0	10.1		ug/L		101	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	4.91		ug/L		98	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.77		ug/L		95	70 - 130
Naphthalene	5.00	5.21		ug/L		104	70 - 130
n-Butylbenzene	5.00	5.29		ug/L		106	70 - 130
N-Propylbenzene	5.00	4.99		ug/L		100	70 - 130
o-Chlorotoluene	5.00	5.19		ug/L		104	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	5.09		ug/L		102	70 - 130
o-Xylene	5.00	5.10		ug/L		102	70 - 130
p-Chlorotoluene	5.00	5.22		ug/L		104	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	4.74		ug/L		95	70 - 130
p-Isopropyltoluene	5.00	5.05		ug/L		101	70 - 130
sec-Butylbenzene	5.00	4.86		ug/L		97	70 - 130
Styrene	5.00	5.30		ug/L		106	70 - 130
Tert-amyl methyl ether	5.00	4.85		ug/L		97	70 - 130
1,3-Dichloropropene, Total	10.0	8.69		ug/L		87	70 - 130
Tert-butyl ethyl ether	5.00	4.65		ug/L		93	70 - 130
tert-Butylbenzene	5.00	4.87		ug/L		97	70 - 130
Tetrachloroethene (PCE)	5.00	4.74		ug/L		95	70 - 130
Toluene	5.00	4.24		ug/L		85	70 - 130
trans-1,2-Dichloroethylene	5.00	4.24		ug/L		85	70 - 130
trans-1,3-Dichloropropene	5.00	4.47		ug/L		89	70 - 130
Trichloroethylene (TCE)	5.00	4.19		ug/L		84	70 - 130
Bromoethane	5.00	4.66		ug/L		93	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.35		ug/L		87	70 - 130
Trichlorotrifluoroethane	5.00	4.23		ug/L		85	70 - 130
Diisopropyl ether	5.00	4.56		ug/L		91	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99042/5
Matrix: Water
Analysis Batch: 99042

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	4.07		ug/L		81	70 - 130
Xylenes, Total	15.0	15.1		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Lab Sample ID: LCSD 380-99042/6
Matrix: Water
Analysis Batch: 99042

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	5.49		ug/L		110	70 - 130	12	20
1,1,1-Trichloroethane	5.00	4.63		ug/L		93	70 - 130	13	20
1,1,2,2-Tetrachloroethane	5.00	5.26		ug/L		105	70 - 130	5	20
1,1,2-Trichloroethane	5.00	5.38		ug/L		108	70 - 130	6	20
1,1-Dichloroethane	5.00	4.90		ug/L		98	70 - 130	9	20
1,1-Dichlorethylene	5.00	4.70		ug/L		94	70 - 130	12	20
1,1-Dichloropropene	5.00	4.64		ug/L		93	70 - 130	9	20
1,2,3-Trichlorobenzene	5.00	5.26		ug/L		105	70 - 130	7	20
1,2,3-Trichloropropane	5.00	5.20		ug/L		104	70 - 130	4	20
1,2,4-Trichlorobenzene	5.00	4.96		ug/L		99	70 - 130	4	20
1,2,4-Trimethylbenzene	5.00	5.35		ug/L		107	70 - 130	5	20
1,2-Dichloroethane	5.00	5.09		ug/L		102	70 - 130	6	20
1,2-Dichloropropane	5.00	4.75		ug/L		95	70 - 130	15	20
1,3,5-Trimethylbenzene	5.00	5.31		ug/L		106	70 - 130	5	20
1,3-Dichloropropane	5.00	5.61		ug/L		112	70 - 130	6	20
2,2-Dichloropropane	5.00	4.43		ug/L		89	70 - 130	2	20
2-Butanone (MEK)	50.0	48.7		ug/L		97	70 - 130	7	20
4-Methyl-2-pentanone (MIBK)	50.0	41.8		ug/L		84	70 - 130	4	20
Acetone	50.0	48.5	J	ug/L		97	70 - 130	17	20
Benzene	5.00	5.02		ug/L		100	70 - 130	7	20
Bromobenzene	5.00	4.91		ug/L		98	70 - 130	4	20
Bromochloromethane	5.00	5.04		ug/L		101	70 - 130	6	20
Bromodichloromethane	5.00	4.41		ug/L		88	70 - 130	10	20
Bromoform	5.00	4.31		ug/L		86	70 - 130	9	20
Bromomethane (Methyl Bromide)	5.00	4.86		ug/L		97	70 - 130	13	20
Carbon disulfide	5.00	4.31		ug/L		86	70 - 130	10	20
Carbon tetrachloride	5.00	4.60		ug/L		92	70 - 130	12	20
Chlorobenzene	5.00	5.86		ug/L		117	70 - 130	13	20
Chlorodibromomethane	5.00	5.00		ug/L		100	70 - 130	15	20
cis-1,3-Dichloropropene	5.00	4.76		ug/L		95	70 - 130	12	20
Dichloromethane	5.00	4.65		ug/L		93	70 - 130	3	20
Ethylbenzene	5.00	5.66		ug/L		113	70 - 130	14	20
Hexachlorobutadiene	5.00	5.28		ug/L		106	70 - 130	16	20
Isopropylbenzene	5.00	5.10		ug/L		102	70 - 130	8	20
m,p-Xylenes	10.0	11.4		ug/L		114	70 - 130	13	20

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99042/6
Matrix: Water
Analysis Batch: 99042

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
m-Dichlorobenzene (1,3-DCB)	5.00	5.09		ug/L		102	70 - 130	4	20
Methyl-tert-butyl Ether (MTBE)	5.00	5.09		ug/L		102	70 - 130	6	20
Naphthalene	5.00	5.39		ug/L		108	70 - 130	3	20
n-Butylbenzene	5.00	5.39		ug/L		108	70 - 130	2	20
N-Propylbenzene	5.00	5.63		ug/L		113	70 - 130	12	20
o-Chlorotoluene	5.00	4.94		ug/L		99	70 - 130	5	20
o-Dichlorobenzene (1,2-DCB)	5.00	5.07		ug/L		101	70 - 130	0	20
o-Xylene	5.00	5.81		ug/L		116	70 - 130	13	20
p-Chlorotoluene	5.00	5.70		ug/L		114	70 - 130	9	20
p-Dichlorobenzene (1,4-DCB)	5.00	5.24		ug/L		105	70 - 130	10	20
p-Isopropyltoluene	5.00	5.16		ug/L		103	70 - 130	2	20
sec-Butylbenzene	5.00	5.14		ug/L		103	70 - 130	6	20
Styrene	5.00	6.09		ug/L		122	70 - 130	14	20
Tert-amyl methyl ether	5.00	5.06		ug/L		101	70 - 130	4	20
1,3-Dichloropropene, Total	10.0	9.62		ug/L		96	70 - 130	10	20
Tert-butyl ethyl ether	5.00	4.86		ug/L		97	70 - 130	4	20
tert-Butylbenzene	5.00	5.24		ug/L		105	70 - 130	7	20
Tetrachloroethene (PCE)	5.00	5.36		ug/L		107	70 - 130	12	20
Toluene	5.00	5.10		ug/L		102	70 - 130	19	20
trans-1,2-Dichloroethylene	5.00	4.69		ug/L		94	70 - 130	10	20
trans-1,3-Dichloropropene	5.00	4.86		ug/L		97	70 - 130	8	20
Trichloroethylene (TCE)	5.00	5.08		ug/L		102	70 - 130	19	20
Bromoethane	5.00	4.92		ug/L		98	70 - 130	5	20
Trichlorofluoromethane (Freon 11)	5.00	4.65		ug/L		93	70 - 130	7	20
Trichlorotrifluoroethane	5.00	4.67		ug/L		93	70 - 130	10	20
Diisopropyl ether	5.00	4.80		ug/L		96	70 - 130	5	20
Vinyl Chloride (VC)	5.00	4.66		ug/L		93	70 - 130	14	20
Xylenes, Total	15.0	17.2		ug/L		115	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	95		70 - 130

Lab Sample ID: MRL 380-99042/3
Matrix: Water
Analysis Batch: 99042

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	0.670		ug/L		134	50 - 150
Vinyl Chloride (VC)	0.250	0.272	J	ug/L		109	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	117		70 - 130

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99042/4
Matrix: Water
Analysis Batch: 99042

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	0.551		ug/L		110	50 - 150
1,1,1-Trichloroethane	0.500	0.509		ug/L		102	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.621		ug/L		124	50 - 150
1,1,2-Trichloroethane	0.500	0.690		ug/L		138	50 - 150
1,1-Dichloroethane	0.500	0.581		ug/L		116	50 - 150
1,1-Dichlorethylene	0.500	0.554		ug/L		111	50 - 150
1,1-Dichloropropene	0.500	0.563		ug/L		113	50 - 150
1,2,3-Trichlorobenzene	0.500	0.710		ug/L		142	50 - 150
1,2,3-Trichloropropane	0.500	0.598		ug/L		120	50 - 150
1,2,4-Trichlorobenzene	0.500	0.645		ug/L		129	50 - 150
1,2,4-Trimethylbenzene	0.500	0.644		ug/L		129	50 - 150
1,2-Dichloroethane	0.500	0.633		ug/L		127	50 - 150
1,2-Dichloropropane	0.500	0.523		ug/L		105	50 - 150
1,3,5-Trimethylbenzene	0.500	0.633		ug/L		127	50 - 150
1,3-Dichloropropane	0.500	0.658		ug/L		132	50 - 150
2,2-Dichloropropane	0.500	0.511		ug/L		102	50 - 150
2-Butanone (MEK)	5.00	6.03		ug/L		121	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	6.77		ug/L		135	50 - 150
Acetone	5.00	4.66	J	ug/L		93	50 - 150
Benzene	0.500	0.603		ug/L		121	50 - 150
Bromobenzene	0.500	0.606		ug/L		121	50 - 150
Bromochloromethane	0.500	0.579		ug/L		116	50 - 150
Bromodichloromethane	0.500	0.483	J	ug/L		97	50 - 150
Bromoform	0.500	0.427	J	ug/L		85	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.605		ug/L		121	50 - 150
Carbon disulfide	0.500	0.489	J	ug/L		98	50 - 150
Carbon tetrachloride	0.500	0.492	J	ug/L		98	50 - 150
Chlorobenzene	0.500	0.644		ug/L		129	50 - 150
Chlorodibromomethane	0.500	0.513		ug/L		103	50 - 150
cis-1,3-Dichloropropene	0.500	0.510		ug/L		102	50 - 150
Dichloromethane	0.500	0.516		ug/L		103	50 - 150
Ethylbenzene	0.500	0.616		ug/L		123	50 - 150
Hexachlorobutadiene	0.500	0.597		ug/L		119	50 - 150
Isopropylbenzene	0.500	0.598		ug/L		120	50 - 150
m,p-Xylenes	1.00	1.22		ug/L		122	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.615		ug/L		123	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.550		ug/L		110	50 - 150
Naphthalene	0.500	0.701		ug/L		140	50 - 150
n-Butylbenzene	0.500	0.645		ug/L		129	50 - 150
N-Propylbenzene	0.500	0.611		ug/L		122	50 - 150
o-Chlorotoluene	0.500	0.666		ug/L		133	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.595		ug/L		119	50 - 150
o-Xylene	0.500	0.617		ug/L		123	50 - 150
p-Chlorotoluene	0.500	0.627		ug/L		125	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.659		ug/L		132	50 - 150
p-Isopropyltoluene	0.500	0.599		ug/L		120	50 - 150
sec-Butylbenzene	0.500	0.582		ug/L		116	50 - 150
Styrene	0.500	0.651		ug/L		130	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99042/4
Matrix: Water
Analysis Batch: 99042

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Tert-amyl methyl ether	0.500	0.613	J	ug/L		123	50 - 150
1,3-Dichloropropene, Total	1.00	1.03		ug/L		103	50 - 150
Tert-butyl ethyl ether	0.500	0.574	J	ug/L		115	50 - 150
tert-Butylbenzene	0.500	0.599		ug/L		120	50 - 150
Tetrachloroethene (PCE)	0.500	0.597		ug/L		119	50 - 150
Toluene	0.500	0.644		ug/L		129	50 - 150
trans-1,2-Dichloroethylene	0.500	0.546		ug/L		109	50 - 150
trans-1,3-Dichloropropene	0.500	0.519		ug/L		104	50 - 150
Trichloroethylene (TCE)	0.500	0.502		ug/L		100	50 - 150
Bromoethane	0.500	0.570		ug/L		114	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.514		ug/L		103	50 - 150
Trichlorotrifluoroethane	0.500	0.498	J	ug/L		100	50 - 150
Diisopropyl ether	0.500	0.517	J	ug/L		103	50 - 150
Vinyl Chloride (VC)	0.500	0.515		ug/L		103	50 - 150
Xylenes, Total	1.50	1.84		ug/L		123	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: MB 380-99090/5
Matrix: Water
Analysis Batch: 99090

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 04:00	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/16/24 04:00	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 04:00	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/16/24 04:00	1
Acetone	<500		500	ug/L			07/16/24 04:00	1
Benzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Bromobenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Bromochloromethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Bromodichloromethane	<0.50		0.50	ug/L			07/16/24 04:00	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Lab Sample ID: MB 380-99090/5
Matrix: Water
Analysis Batch: 99090

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.50		0.50	ug/L			07/16/24 04:00	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/16/24 04:00	1
Carbon disulfide	<0.50		0.50	ug/L			07/16/24 04:00	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/16/24 04:00	1
Chlorobenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Chloroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/16/24 04:00	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 04:00	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 04:00	1
Dibromomethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Dichloromethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Ethylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/16/24 04:00	1
Isopropylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
m,p-Xylenes	<0.50		0.50	ug/L			07/16/24 04:00	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/16/24 04:00	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/16/24 04:00	1
Naphthalene	<0.50		0.50	ug/L			07/16/24 04:00	1
n-Butylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
N-Propylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 04:00	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/16/24 04:00	1
o-Xylene	<0.50		0.50	ug/L			07/16/24 04:00	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 04:00	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/16/24 04:00	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/16/24 04:00	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Styrene	<0.50		0.50	ug/L			07/16/24 04:00	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			07/16/24 04:00	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/16/24 04:00	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			07/16/24 04:00	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/16/24 04:00	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/16/24 04:00	1
Toluene	<0.50		0.50	ug/L			07/16/24 04:00	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 04:00	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 04:00	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/16/24 04:00	1
Bromoethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/16/24 04:00	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/16/24 04:00	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/16/24 04:00	1
Diisopropyl ether	<3.0		3.0	ug/L			07/16/24 04:00	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/16/24 04:00	1
Xylenes, Total	<0.50		0.50	ug/L			07/16/24 04:00	1

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 380-99090/5
Matrix: Water
Analysis Batch: 99090

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

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>		<i>07/16/24 04:00</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>100</i>		<i>70 - 130</i>		<i>07/16/24 04:00</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>110</i>		<i>70 - 130</i>		<i>07/16/24 04:00</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>93</i>		<i>70 - 130</i>		<i>07/16/24 04:00</i>	<i>1</i>

Lab Sample ID: LCS 380-99090/3
Matrix: Water
Analysis Batch: 99090

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,1,1,2-Tetrachloroethane	5.00	4.32		ug/L		86	70 - 130
1,1,1-Trichloroethane	5.00	4.57		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.98		ug/L		100	70 - 130
1,1,2-Trichloroethane	5.00	4.23		ug/L		85	70 - 130
1,1-Dichloroethane	5.00	4.83		ug/L		97	70 - 130
1,1-Dichlorethylene	5.00	4.79		ug/L		96	70 - 130
1,1-Dichloropropene	5.00	4.86		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	5.00	5.18		ug/L		104	70 - 130
1,2,3-Trichloropropane	5.00	5.03		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	5.00	5.24		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	5.00	5.51		ug/L		110	70 - 130
1,2-Dichloroethane	5.00	5.02		ug/L		100	70 - 130
1,2-Dichloropropane	5.00	4.53		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	5.00	5.57		ug/L		111	70 - 130
1,3-Dichloropropane	5.00	4.49		ug/L		90	70 - 130
2,2-Dichloropropane	5.00	4.00		ug/L		80	70 - 130
2-Butanone (MEK)	50.0	41.9		ug/L		84	70 - 130
Acetone	50.0	44.2	J	ug/L		88	70 - 130
Benzene	5.00	4.96		ug/L		99	70 - 130
Bromobenzene	5.00	5.28		ug/L		106	70 - 130
Bromochloromethane	5.00	4.67		ug/L		93	70 - 130
Bromodichloromethane	5.00	4.37		ug/L		87	70 - 130
Bromoform	5.00	4.35		ug/L		87	70 - 130
Bromomethane (Methyl Bromide)	5.00	5.00		ug/L		100	70 - 130
Carbon disulfide	5.00	4.25		ug/L		85	70 - 130
Carbon tetrachloride	5.00	4.83		ug/L		97	70 - 130
Chlorobenzene	5.00	4.73		ug/L		95	70 - 130
Chlorodibromomethane	5.00	3.88		ug/L		78	70 - 130
cis-1,3-Dichloropropene	5.00	3.80		ug/L		76	70 - 130
Dichloromethane	5.00	4.46		ug/L		89	70 - 130
Ethylbenzene	5.00	4.52		ug/L		90	70 - 130
Hexachlorobutadiene	5.00	4.81		ug/L		96	70 - 130
Isopropylbenzene	5.00	5.31		ug/L		106	70 - 130
m,p-Xylenes	10.0	8.90		ug/L		89	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	5.52		ug/L		110	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.66		ug/L		93	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99090/3
Matrix: Water
Analysis Batch: 99090

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	5.00	5.23		ug/L		105	70 - 130
n-Butylbenzene	5.00	4.98		ug/L		100	70 - 130
N-Propylbenzene	5.00	4.53		ug/L		91	70 - 130
o-Chlorotoluene	5.00	5.15		ug/L		103	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	4.95		ug/L		99	70 - 130
o-Xylene	5.00	4.55		ug/L		91	70 - 130
p-Chlorotoluene	5.00	4.55		ug/L		91	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	5.60		ug/L		112	70 - 130
p-Isopropyltoluene	5.00	5.73		ug/L		115	70 - 130
sec-Butylbenzene	5.00	5.36		ug/L		107	70 - 130
Styrene	5.00	4.73		ug/L		95	70 - 130
Tert-amyl methyl ether	5.00	4.61		ug/L		92	70 - 130
1,3-Dichloropropene, Total	10.0	7.32		ug/L		73	70 - 130
Tert-butyl ethyl ether	5.00	4.70		ug/L		94	70 - 130
tert-Butylbenzene	5.00	5.52		ug/L		110	70 - 130
Tetrachloroethene (PCE)	5.00	4.74		ug/L		95	70 - 130
Toluene	5.00	4.12		ug/L		82	70 - 130
trans-1,2-Dichloroethylene	5.00	4.48		ug/L		90	70 - 130
trans-1,3-Dichloropropene	5.00	3.52		ug/L		70	70 - 130
Trichloroethylene (TCE)	5.00	4.74		ug/L		95	70 - 130
Bromoethane	5.00	4.88		ug/L		98	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.87		ug/L		97	70 - 130
Trichlorotrifluoroethane	5.00	4.94		ug/L		99	70 - 130
Diisopropyl ether	5.00	4.81		ug/L		96	70 - 130
Vinyl Chloride (VC)	5.00	4.87		ug/L		97	70 - 130
Xylenes, Total	15.0	13.4		ug/L		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	86		70 - 130

Lab Sample ID: LCSD 380-99090/4
Matrix: Water
Analysis Batch: 99090

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	4.15		ug/L		83	70 - 130	4	20
1,1,1-Trichloroethane	5.00	4.35		ug/L		87	70 - 130	5	20
1,1,1,2,2-Tetrachloroethane	5.00	4.59		ug/L		92	70 - 130	8	20
1,1,1,2-Trichloroethane	5.00	4.08		ug/L		82	70 - 130	4	20
1,1-Dichloroethane	5.00	4.56		ug/L		91	70 - 130	6	20
1,1-Dichloroethylene	5.00	4.39		ug/L		88	70 - 130	9	20
1,1-Dichloropropene	5.00	4.48		ug/L		90	70 - 130	8	20
1,2,3-Trichlorobenzene	5.00	5.13		ug/L		103	70 - 130	1	20
1,2,3-Trichloropropane	5.00	4.93		ug/L		99	70 - 130	2	20
1,2,4-Trichlorobenzene	5.00	5.09		ug/L		102	70 - 130	3	20
1,2,4-Trimethylbenzene	5.00	5.22		ug/L		104	70 - 130	5	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99090/4
Matrix: Water
Analysis Batch: 99090

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
1,2-Dichloroethane	5.00	4.78		ug/L		96	70 - 130	5	20
1,2-Dichloropropane	5.00	4.43		ug/L		89	70 - 130	2	20
1,3,5-Trimethylbenzene	5.00	5.26		ug/L		105	70 - 130	6	20
1,3-Dichloropropane	5.00	4.35		ug/L		87	70 - 130	3	20
2,2-Dichloropropane	5.00	3.56		ug/L		71	70 - 130	12	20
2-Butanone (MEK)	50.0	41.8		ug/L		84	70 - 130	0	20
Acetone	50.0	40.4	J	ug/L		81	70 - 130	9	20
Benzene	5.00	4.58		ug/L		92	70 - 130	8	20
Bromobenzene	5.00	5.14		ug/L		103	70 - 130	3	20
Bromochloromethane	5.00	4.33		ug/L		87	70 - 130	8	20
Bromodichloromethane	5.00	4.21		ug/L		84	70 - 130	4	20
Bromoform	5.00	4.24		ug/L		85	70 - 130	3	20
Bromomethane (Methyl Bromide)	5.00	4.46		ug/L		89	70 - 130	11	20
Carbon disulfide	5.00	4.04		ug/L		81	70 - 130	5	20
Carbon tetrachloride	5.00	4.50		ug/L		90	70 - 130	7	20
Chlorobenzene	5.00	4.57		ug/L		91	70 - 130	3	20
Chlorodibromomethane	5.00	3.77		ug/L		75	70 - 130	3	20
cis-1,3-Dichloropropene	5.00	4.10		ug/L		82	70 - 130	7	20
Dichloromethane	5.00	4.42		ug/L		88	70 - 130	1	20
Ethylbenzene	5.00	4.22		ug/L		84	70 - 130	7	20
Hexachlorobutadiene	5.00	4.39		ug/L		88	70 - 130	9	20
Isopropylbenzene	5.00	4.98		ug/L		100	70 - 130	7	20
m,p-Xylenes	10.0	8.50		ug/L		85	70 - 130	4	20
m-Dichlorobenzene (1,3-DCB)	5.00	5.16		ug/L		103	70 - 130	7	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.55		ug/L		91	70 - 130	2	20
Naphthalene	5.00	5.19		ug/L		104	70 - 130	1	20
n-Butylbenzene	5.00	4.82		ug/L		96	70 - 130	3	20
N-Propylbenzene	5.00	4.23		ug/L		85	70 - 130	7	20
o-Chlorotoluene	5.00	5.12		ug/L		102	70 - 130	0	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.78		ug/L		96	70 - 130	3	20
o-Xylene	5.00	4.35		ug/L		87	70 - 130	4	20
p-Chlorotoluene	5.00	4.39		ug/L		88	70 - 130	3	20
p-Dichlorobenzene (1,4-DCB)	5.00	5.01		ug/L		100	70 - 130	11	20
p-Isopropyltoluene	5.00	5.33		ug/L		107	70 - 130	7	20
sec-Butylbenzene	5.00	5.03		ug/L		101	70 - 130	6	20
Styrene	5.00	4.54		ug/L		91	70 - 130	4	20
Tert-amyl methyl ether	5.00	4.49		ug/L		90	70 - 130	3	20
1,3-Dichloropropene, Total	10.0	7.75		ug/L		78	70 - 130	6	20
Tert-butyl ethyl ether	5.00	4.34		ug/L		87	70 - 130	8	20
tert-Butylbenzene	5.00	5.15		ug/L		103	70 - 130	7	20
Tetrachloroethene (PCE)	5.00	4.53		ug/L		91	70 - 130	4	20
Toluene	5.00	4.26		ug/L		85	70 - 130	3	20
trans-1,2-Dichloroethylene	5.00	4.34		ug/L		87	70 - 130	3	20
trans-1,3-Dichloropropene	5.00	3.65		ug/L		73	70 - 130	4	20
Trichloroethylene (TCE)	5.00	4.43		ug/L		89	70 - 130	7	20
Bromoethane	5.00	4.54		ug/L		91	70 - 130	7	20
Trichlorofluoromethane (Freon 11)	5.00	4.83		ug/L		97	70 - 130	1	20
Trichlorotrifluoroethane	5.00	4.70		ug/L		94	70 - 130	5	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99090/4
Matrix: Water
Analysis Batch: 99090

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
Diisopropyl ether	5.00	4.53		ug/L		91	70 - 130	6	20
Vinyl Chloride (VC)	5.00	4.29		ug/L		86	70 - 130	13	20
Xylenes, Total	15.0	12.9		ug/L		86	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Toluene-d8 (Surr)	87		70 - 130

Lab Sample ID: MB 380-99198/8
Matrix: Water
Analysis Batch: 99198

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1-Dichloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,1-Dichloropropene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2-Dichloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 13:50	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,3-Dichloropropane	<0.50		0.50	ug/L			07/16/24 13:50	1
2,2-Dichloropropane	<0.50		0.50	ug/L			07/16/24 13:50	1
2-Butanone (MEK)	<5.0		5.0	ug/L			07/16/24 13:50	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			07/16/24 13:50	1
Acetone	<500		500	ug/L			07/16/24 13:50	1
Benzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromobenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromochloromethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromodichloromethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromoform	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			07/16/24 13:50	1
Carbon disulfide	<0.50		0.50	ug/L			07/16/24 13:50	1
Carbon tetrachloride	<0.50		0.50	ug/L			07/16/24 13:50	1
Chlorobenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Chlorodibromomethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Chloroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			07/16/24 13:50	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 13:50	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 13:50	1
Dibromomethane	<0.50		0.50	ug/L			07/16/24 13:50	1

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 380-99198/8
Matrix: Water
Analysis Batch: 99198

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Dichloromethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Ethylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Hexachlorobutadiene	<0.50		0.50	ug/L			07/16/24 13:50	1
Isopropylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
m,p-Xylenes	<0.50		0.50	ug/L			07/16/24 13:50	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			07/16/24 13:50	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			07/16/24 13:50	1
Naphthalene	<0.50		0.50	ug/L			07/16/24 13:50	1
n-Butylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
N-Propylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
o-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 13:50	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			07/16/24 13:50	1
o-Xylene	<0.50		0.50	ug/L			07/16/24 13:50	1
p-Chlorotoluene	<0.50		0.50	ug/L			07/16/24 13:50	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			07/16/24 13:50	1
p-Isopropyltoluene	<0.50		0.50	ug/L			07/16/24 13:50	1
sec-Butylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Styrene	<0.50		0.50	ug/L			07/16/24 13:50	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			07/16/24 13:50	1
tert-Butylbenzene	<0.50		0.50	ug/L			07/16/24 13:50	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			07/16/24 13:50	1
Toluene	<0.50		0.50	ug/L			07/16/24 13:50	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			07/16/24 13:50	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			07/16/24 13:50	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			07/16/24 13:50	1
Bromoethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			07/16/24 13:50	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			07/16/24 13:50	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			07/16/24 13:50	1
Diisopropyl ether	<3.0		3.0	ug/L			07/16/24 13:50	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			07/16/24 13:50	1
Xylenes, Total	<0.50		0.50	ug/L			07/16/24 13:50	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.78	T J	ug/L		10.11	N/A		07/16/24 13:50	1
Unknown	1.63	T J	ug/L		11.66	N/A		07/16/24 13:50	1

<i>Surrogate</i>	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		07/16/24 13:50	1
4-Bromofluorobenzene (Surr)	107		70 - 130		07/16/24 13:50	1
Toluene-d8 (Surr)	101		70 - 130		07/16/24 13:50	1

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99198/3

Matrix: Water

Analysis Batch: 99198

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	4.10		ug/L		82	70 - 130
1,1,1-Trichloroethane	5.00	4.83		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.76		ug/L		95	70 - 130
1,1,2-Trichloroethane	5.00	5.07		ug/L		101	70 - 130
1,1-Dichloroethane	5.00	5.31		ug/L		106	70 - 130
1,1-Dichlorethylene	5.00	5.01		ug/L		100	70 - 130
1,1-Dichloropropene	5.00	4.99		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	5.00	4.32		ug/L		86	70 - 130
1,2,3-Trichloropropane	5.00	4.69		ug/L		94	70 - 130
1,2,4-Trichlorobenzene	5.00	4.36		ug/L		87	70 - 130
1,2,4-Trimethylbenzene	5.00	5.46		ug/L		109	70 - 130
1,2-Dichloroethane	5.00	5.44		ug/L		109	70 - 130
1,2-Dichloropropane	5.00	5.14		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	5.00	5.56		ug/L		111	70 - 130
1,3-Dichloropropane	5.00	5.04		ug/L		101	70 - 130
2,2-Dichloropropane	5.00	4.19		ug/L		84	70 - 130
2-Butanone (MEK)	50.0	41.0		ug/L		82	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	38.8		ug/L		78	70 - 130
Acetone	50.0	45.7	J	ug/L		91	70 - 130
Benzene	5.00	5.15		ug/L		103	70 - 130
Bromobenzene	5.00	5.49		ug/L		110	70 - 130
Bromochloromethane	5.00	5.12		ug/L		102	70 - 130
Bromodichloromethane	5.00	5.24		ug/L		105	70 - 130
Bromoform	5.00	5.48		ug/L		110	70 - 130
Bromomethane (Methyl Bromide)	5.00	6.42		ug/L		128	70 - 130
Carbon disulfide	5.00	4.64		ug/L		93	70 - 130
Carbon tetrachloride	5.00	4.55		ug/L		91	70 - 130
Chlorobenzene	5.00	5.34		ug/L		107	70 - 130
Chlorodibromomethane	5.00	5.48		ug/L		110	70 - 130
cis-1,3-Dichloropropene	5.00	4.66		ug/L		93	70 - 130
Dichloromethane	5.00	5.29		ug/L		106	70 - 130
Ethylbenzene	5.00	5.23		ug/L		105	70 - 130
Hexachlorobutadiene	5.00	4.83		ug/L		97	70 - 130
Isopropylbenzene	5.00	5.30		ug/L		106	70 - 130
m,p-Xylenes	10.0	10.8		ug/L		108	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	5.66		ug/L		113	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.61		ug/L		92	70 - 130
Naphthalene	5.00	3.53		ug/L		71	70 - 130
n-Butylbenzene	5.00	4.84		ug/L		97	70 - 130
N-Propylbenzene	5.00	5.51		ug/L		110	70 - 130
o-Chlorotoluene	5.00	5.77		ug/L		115	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	5.12		ug/L		102	70 - 130
o-Xylene	5.00	5.39		ug/L		108	70 - 130
p-Chlorotoluene	5.00	5.65		ug/L		113	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	5.81		ug/L		116	70 - 130
p-Isopropyltoluene	5.00	4.95		ug/L		99	70 - 130
sec-Butylbenzene	5.00	5.42		ug/L		108	70 - 130
Styrene	5.00	5.37		ug/L		107	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99198/3
Matrix: Water
Analysis Batch: 99198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropene, Total	10.0	9.60		ug/L		96	70 - 130
tert-Butylbenzene	5.00	5.35		ug/L		107	70 - 130
Tetrachloroethene (PCE)	5.00	5.43		ug/L		109	70 - 130
Toluene	5.00	5.13		ug/L		103	70 - 130
trans-1,2-Dichloroethylene	5.00	5.38		ug/L		108	70 - 130
trans-1,3-Dichloropropene	5.00	4.94		ug/L		99	70 - 130
Trichloroethylene (TCE)	5.00	5.21		ug/L		104	70 - 130
Bromoethane	5.00	5.61		ug/L		112	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	8.73	*+	ug/L		175	70 - 130
Trichlorotrifluoroethane	5.00	5.27		ug/L		105	70 - 130
Diisopropyl ether	5.00	4.81		ug/L		96	70 - 130
Vinyl Chloride (VC)	5.00	5.59		ug/L		112	70 - 130
Xylenes, Total	15.0	16.2		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 380-99198/4
Matrix: Water
Analysis Batch: 99198

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	4.11		ug/L		82	70 - 130	0	20
1,1,1-Trichloroethane	5.00	4.74		ug/L		95	70 - 130	2	20
1,1,1,2,2-Tetrachloroethane	5.00	4.56		ug/L		91	70 - 130	4	20
1,1,2-Trichloroethane	5.00	4.72		ug/L		94	70 - 130	7	20
1,1-Dichloroethane	5.00	4.98		ug/L		100	70 - 130	6	20
1,1-Dichloroethylene	5.00	4.75		ug/L		95	70 - 130	5	20
1,1-Dichloropropene	5.00	4.82		ug/L		96	70 - 130	3	20
1,2,3-Trichlorobenzene	5.00	4.32		ug/L		86	70 - 130	0	20
1,2,3-Trichloropropane	5.00	4.67		ug/L		93	70 - 130	1	20
1,2,4-Trichlorobenzene	5.00	4.36		ug/L		87	70 - 130	0	20
1,2,4-Trimethylbenzene	5.00	5.38		ug/L		108	70 - 130	1	20
1,2-Dichloroethane	5.00	5.25		ug/L		105	70 - 130	3	20
1,2-Dichloropropane	5.00	5.09		ug/L		102	70 - 130	1	20
1,3,5-Trimethylbenzene	5.00	5.43		ug/L		109	70 - 130	2	20
1,3-Dichloropropane	5.00	5.03		ug/L		101	70 - 130	0	20
2,2-Dichloropropane	5.00	5.56	*1	ug/L		111	70 - 130	28	20
2-Butanone (MEK)	50.0	38.8		ug/L		78	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	50.0	38.2		ug/L		76	70 - 130	2	20
Acetone	50.0	38.0	J	ug/L		76	70 - 130	18	20
Benzene	5.00	4.98		ug/L		100	70 - 130	3	20
Bromobenzene	5.00	5.29		ug/L		106	70 - 130	4	20
Bromochloromethane	5.00	4.89		ug/L		98	70 - 130	5	20
Bromodichloromethane	5.00	4.80		ug/L		96	70 - 130	9	20
Bromoform	5.00	3.70	*1	ug/L		74	70 - 130	39	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99198/4
Matrix: Water
Analysis Batch: 99198

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
Bromomethane (Methyl Bromide)	5.00	5.09	*1	ug/L		102	70 - 130	23	20
Carbon disulfide	5.00	4.37		ug/L		87	70 - 130	6	20
Carbon tetrachloride	5.00	4.42		ug/L		88	70 - 130	3	20
Chlorobenzene	5.00	5.43		ug/L		109	70 - 130	2	20
Chlorodibromomethane	5.00	4.62		ug/L		92	70 - 130	17	20
cis-1,3-Dichloropropene	5.00	4.58		ug/L		92	70 - 130	2	20
Dichloromethane	5.00	5.14		ug/L		103	70 - 130	3	20
Ethylbenzene	5.00	5.31		ug/L		106	70 - 130	2	20
Hexachlorobutadiene	5.00	4.60		ug/L		92	70 - 130	5	20
Isopropylbenzene	5.00	5.31		ug/L		106	70 - 130	0	20
m,p-Xylenes	10.0	10.7		ug/L		107	70 - 130	1	20
m-Dichlorobenzene (1,3-DCB)	5.00	5.49		ug/L		110	70 - 130	3	20
Methyl-tert-butyl Ether (MTBE)	5.00	3.90		ug/L		78	70 - 130	17	20
Naphthalene	5.00	3.74		ug/L		75	70 - 130	6	20
n-Butylbenzene	5.00	4.66		ug/L		93	70 - 130	4	20
N-Propylbenzene	5.00	5.29		ug/L		106	70 - 130	4	20
o-Chlorotoluene	5.00	5.53		ug/L		111	70 - 130	4	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.95		ug/L		99	70 - 130	3	20
o-Xylene	5.00	5.35		ug/L		107	70 - 130	1	20
p-Chlorotoluene	5.00	5.55		ug/L		111	70 - 130	2	20
p-Dichlorobenzene (1,4-DCB)	5.00	5.60		ug/L		112	70 - 130	4	20
p-Isopropyltoluene	5.00	4.82		ug/L		96	70 - 130	3	20
sec-Butylbenzene	5.00	5.13		ug/L		103	70 - 130	6	20
Styrene	5.00	5.37		ug/L		107	70 - 130	0	20
1,3-Dichloropropene, Total	10.0	9.47		ug/L		95	70 - 130	1	20
tert-Butylbenzene	5.00	5.16		ug/L		103	70 - 130	4	20
Tetrachloroethene (PCE)	5.00	5.47		ug/L		109	70 - 130	1	20
Toluene	5.00	5.12		ug/L		102	70 - 130	0	20
trans-1,2-Dichloroethylene	5.00	5.07		ug/L		101	70 - 130	6	20
trans-1,3-Dichloropropene	5.00	4.89		ug/L		98	70 - 130	1	20
Trichloroethylene (TCE)	5.00	5.02		ug/L		100	70 - 130	4	20
Bromoethane	5.00	5.51		ug/L		110	70 - 130	2	20
Trichlorofluoromethane (Freon 11)	5.00	8.10	*+	ug/L		162	70 - 130	7	20
Trichlorotrifluoroethane	5.00	4.95		ug/L		99	70 - 130	6	20
Diisopropyl ether	5.00	5.12		ug/L		102	70 - 130	6	20
Vinyl Chloride (VC)	5.00	5.30		ug/L		106	70 - 130	5	20
Xylenes, Total	15.0	16.1		ug/L		107	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	105		70 - 130

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99198/5
Matrix: Water
Analysis Batch: 99198

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	0.408	J	ug/L		82	50 - 150
1,1,1-Trichloroethane	0.500	0.573		ug/L		115	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.547		ug/L		109	50 - 150
1,1,2-Trichloroethane	0.500	0.568		ug/L		114	50 - 150
1,1-Dichloroethane	0.500	0.612		ug/L		122	50 - 150
1,1-Dichlorethylene	0.500	0.616		ug/L		123	50 - 150
1,1-Dichloropropene	0.500	0.600		ug/L		120	50 - 150
1,2,3-Trichlorobenzene	0.500	0.481	J	ug/L		96	50 - 150
1,2,3-Trichloropropane	0.500	0.591		ug/L		118	50 - 150
1,2,4-Trichlorobenzene	0.500	0.509		ug/L		102	50 - 150
1,2,4-Trimethylbenzene	0.500	0.522		ug/L		104	50 - 150
1,2-Dichloroethane	0.500	0.662		ug/L		132	50 - 150
1,2-Dichloropropane	0.500	0.608		ug/L		122	50 - 150
1,3,5-Trimethylbenzene	0.500	0.574		ug/L		115	50 - 150
1,3-Dichloropropane	0.500	0.617		ug/L		123	50 - 150
2,2-Dichloropropane	0.500	0.711		ug/L		142	50 - 150
2-Butanone (MEK)	5.00	4.15	J	ug/L		83	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	4.53	J	ug/L		91	50 - 150
Acetone	5.00	5.57	J	ug/L		111	50 - 150
Benzene	0.500	0.642		ug/L		128	50 - 150
Bromobenzene	0.500	0.658		ug/L		132	50 - 150
Bromochloromethane	0.500	0.590		ug/L		118	50 - 150
Bromodichloromethane	0.500	0.557		ug/L		111	50 - 150
Bromoform	0.500	0.323	J	ug/L		65	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.655		ug/L		131	50 - 150
Carbon disulfide	0.500	0.528		ug/L		106	50 - 150
Carbon tetrachloride	0.500	0.458	J	ug/L		92	50 - 150
Chlorobenzene	0.500	0.659		ug/L		132	50 - 150
Chlorodibromomethane	0.500	0.505		ug/L		101	50 - 150
cis-1,3-Dichloropropene	0.500	0.523		ug/L		105	50 - 150
Dichloromethane	0.500	0.601		ug/L		120	50 - 150
Ethylbenzene	0.500	0.597		ug/L		119	50 - 150
Hexachlorobutadiene	0.500	0.579		ug/L		116	50 - 150
Isopropylbenzene	0.500	0.604		ug/L		121	50 - 150
m,p-Xylenes	1.00	1.18		ug/L		118	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.611		ug/L		122	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.432	J	ug/L		86	50 - 150
Naphthalene	0.500	0.407	J	ug/L		81	50 - 150
n-Butylbenzene	0.500	0.534		ug/L		107	50 - 150
N-Propylbenzene	0.500	0.581		ug/L		116	50 - 150
o-Chlorotoluene	0.500	0.614		ug/L		123	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.592		ug/L		118	50 - 150
o-Xylene	0.500	0.608		ug/L		122	50 - 150
p-Chlorotoluene	0.500	0.598		ug/L		120	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.617		ug/L		123	50 - 150
p-Isopropyltoluene	0.500	0.494	J	ug/L		99	50 - 150
sec-Butylbenzene	0.500	0.558		ug/L		112	50 - 150
Styrene	0.500	0.555		ug/L		111	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99198/5
Matrix: Water
Analysis Batch: 99198

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropene, Total	1.00	1.02		ug/L		102	50 - 150
tert-Butylbenzene	0.500	0.453	J	ug/L		91	50 - 150
Tetrachloroethene (PCE)	0.500	0.660		ug/L		132	50 - 150
Toluene	0.500	0.611		ug/L		122	50 - 150
trans-1,2-Dichloroethylene	0.500	0.639		ug/L		128	50 - 150
trans-1,3-Dichloropropene	0.500	0.496	J	ug/L		99	50 - 150
Trichloroethylene (TCE)	0.500	0.602		ug/L		120	50 - 150
Bromoethane	0.500	0.654		ug/L		131	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.908	^3+	ug/L		182	50 - 150
Trichlorotrifluoroethane	0.500	0.608		ug/L		122	50 - 150
Diisopropyl ether	0.500	0.635	J	ug/L		127	50 - 150
Vinyl Chloride (VC)	0.500	0.604		ug/L		121	50 - 150
Xylenes, Total	1.50	1.79		ug/L		119	50 - 150

Surrogate	%Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: MRL 380-99198/6
Matrix: Water
Analysis Batch: 99198

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	0.619		ug/L		124	50 - 150
Vinyl Chloride (VC)	0.250	0.292	J	ug/L		117	50 - 150

Surrogate	%Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	102		70 - 130

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

Lab Sample ID: MB 380-99491/5
Matrix: Water
Analysis Batch: 99491

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			07/17/24 15:57	1

Surrogate	%Recovery	MB Qualifier	MRL Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		07/17/24 15:57	1
4-Bromofluorobenzene (Surr)	96		70 - 130		07/17/24 15:57	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		07/17/24 15:57	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99491/2
Matrix: Water
Analysis Batch: 99491

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	5.49		ug/L		110	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
Toluene-d8 (Surr)	98		70 - 130				
4-Bromofluorobenzene (Surr)	95		70 - 130				
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				

Lab Sample ID: LCSD 380-99491/3
Matrix: Water
Analysis Batch: 99491

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	5.61		ug/L		112	70 - 130	2	20
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
Toluene-d8 (Surr)	100		70 - 130						
4-Bromofluorobenzene (Surr)	96		70 - 130						
1,2-Dichloroethane-d4 (Surr)	103		70 - 130						

Lab Sample ID: MRL 380-99491/4
Matrix: Water
Analysis Batch: 99491

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	2.71		ug/L		135	50 - 150
MRL MRL							
Surrogate	%Recovery	Qualifier	Limits				
Toluene-d8 (Surr)	98		50 - 150				
4-Bromofluorobenzene (Surr)	96		50 - 150				
1,2-Dichloroethane-d4 (Surr)	100		50 - 150				

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

Lab Sample ID: MB 380-99014/21-A
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99014

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
2,4'-DDE	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
2,4'-DDT	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
4,4'-DDD	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
4,4'-DDE	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
4,4'-DDT	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Acenaphthene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Acenaphthylene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 380-99014/21-A
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99014

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Acetochlor	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Alachlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
alpha-BHC	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
alpha-Chlordane	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Anthracene	<0.020		0.020	ug/L		07/15/24 11:00	07/16/24 12:08	1
Atrazine	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Benz(a)anthracene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Benzo[a]pyrene	<0.020		0.020	ug/L		07/15/24 11:00	07/16/24 12:08	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		07/15/24 11:00	07/16/24 12:08	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		07/15/24 11:00	07/16/24 12:08	1
beta-BHC	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		07/15/24 11:00	07/16/24 12:08	1
Aldrin	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Bromacil	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Butachlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Butylbenzylphthalate	<0.50		0.50	ug/L		07/15/24 11:00	07/16/24 12:08	1
Chlorobenzilate	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Chloroneb	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Chlorpyrifos	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Chrysene	<0.020		0.020	ug/L		07/15/24 11:00	07/16/24 12:08	1
delta-BHC	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		07/15/24 11:00	07/16/24 12:08	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Dieldrin	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Diethylphthalate	<0.50		0.50	ug/L		07/15/24 11:00	07/16/24 12:08	1
Dimethylphthalate	<0.50		0.50	ug/L		07/15/24 11:00	07/16/24 12:08	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		07/15/24 11:00	07/16/24 12:08	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Endosulfan sulfate	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Endrin	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Endrin aldehyde	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
EPTC	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Fluoranthene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Fluorene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
gamma-BHC (Lindane)	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
gamma-Chlordane	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Heptachlor	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Hexachlorobenzene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Isophorone	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Malathion	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Methoxychlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 380-99014/21-A
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99014

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Metolachlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Molinate	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Naphthalene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Parathion	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Phenanthrene	<0.040		0.040	ug/L		07/15/24 11:00	07/16/24 12:08	1
Propachlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Pyrene	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Simazine	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Terbacil	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Terbuthylazine	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Thiobencarb	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		07/15/24 11:00	07/16/24 12:08	1
trans-Nonachlor	<0.050		0.050	ug/L		07/15/24 11:00	07/16/24 12:08	1
Trifluralin	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
1-Methylnaphthalene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1
2-Methylnaphthalene	<0.099		0.099	ug/L		07/15/24 11:00	07/16/24 12:08	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Camphene	0.933	T J N	ug/L		2.42	79-92-5	07/15/24 11:00	07/16/24 12:08	1
Decane	1.61	T J N	ug/L		2.50	124-18-5	07/15/24 11:00	07/16/24 12:08	1
Unknown	0.629	T J	ug/L		4.56	N/A	07/15/24 11:00	07/16/24 12:08	1
9-Octadecenamide, (Z)-	3.63	T J N	ug/L		7.78	301-02-0	07/15/24 11:00	07/16/24 12:08	1
Unknown	1.35	T J	ug/L		11.58	N/A	07/15/24 11:00	07/16/24 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		70 - 130	07/15/24 11:00	07/16/24 12:08	1
Perylene-d12	90		70 - 130	07/15/24 11:00	07/16/24 12:08	1
Triphenylphosphate	107		70 - 130	07/15/24 11:00	07/16/24 12:08	1

Lab Sample ID: LCS 380-99014/23-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.99	2.08		ug/L		105	70 - 130
2,4'-DDE	1.99	1.89		ug/L		95	70 - 130
2,4'-DDT	1.99	2.07		ug/L		104	70 - 130
2,4-Dinitrotoluene	1.99	1.86		ug/L		94	70 - 130
2,6-Dinitrotoluene	1.99	1.92		ug/L		97	70 - 130
4,4'-DDD	1.99	2.02		ug/L		101	70 - 130
4,4'-DDE	1.99	2.01		ug/L		101	70 - 130
4,4'-DDT	1.99	1.89		ug/L		95	70 - 130
Acenaphthene	1.99	1.85		ug/L		93	70 - 130
Acenaphthylene	1.99	2.05		ug/L		103	70 - 130
Acetochlor	1.99	2.37		ug/L		119	70 - 130
Alachlor	1.99	2.19		ug/L		110	70 - 130
alpha-BHC	1.99	2.00		ug/L		101	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99014/23-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
alpha-Chlordane	1.99	2.19		ug/L		110	70 - 130
Anthracene	1.99	1.90		ug/L		96	70 - 130
Atrazine	1.99	1.98		ug/L		100	70 - 130
Benz(a)anthracene	1.99	1.95		ug/L		98	70 - 130
Benzo[a]pyrene	1.99	2.14		ug/L		107	70 - 130
Benzo[b]fluoranthene	1.99	2.05		ug/L		103	70 - 130
Benzo[g,h,i]perylene	1.99	2.36		ug/L		119	70 - 130
Benzo[k]fluoranthene	1.99	2.11		ug/L		106	70 - 130
beta-BHC	1.99	2.03		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.50		ug/L		126	70 - 130
Aldrin	1.99	1.77		ug/L		89	70 - 130
Bromacil	1.99	2.00		ug/L		101	70 - 130
Butachlor	1.99	2.24		ug/L		113	70 - 130
Butylbenzylphthalate	1.99	2.18		ug/L		110	70 - 130
Chlorobenzilate	1.99	2.02		ug/L		102	70 - 130
Chloroneb	1.99	1.89		ug/L		95	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	1.99		ug/L		100	70 - 130
Chlorpyrifos	1.99	2.04		ug/L		103	70 - 130
Chrysene	1.99	1.94		ug/L		98	70 - 130
delta-BHC	1.99	2.08		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.34		ug/L		117	70 - 130
Dibenz(a,h)anthracene	1.99	2.34		ug/L		118	70 - 130
Diclorvos (DDVP)	1.99	2.16		ug/L		109	70 - 130
Dieldrin	1.99	1.97		ug/L		99	70 - 130
Diethylphthalate	1.99	2.02		ug/L		101	70 - 130
Dimethylphthalate	1.99	2.15		ug/L		108	70 - 130
Di-n-butyl phthalate	3.98	4.25		ug/L		107	70 - 130
Di-n-octyl phthalate	1.99	2.19		ug/L		110	70 - 130
Endosulfan I (Alpha)	1.99	2.04		ug/L		103	70 - 130
Endosulfan II (Beta)	1.99	2.10		ug/L		106	70 - 130
Endosulfan sulfate	1.99	1.97		ug/L		99	70 - 130
Endrin	1.99	1.77		ug/L		89	70 - 130
Endrin aldehyde	1.99	1.51		ug/L		76	60 - 130
EPTC	1.99	2.16		ug/L		109	70 - 130
Fluoranthene	1.99	2.02		ug/L		102	70 - 130
Fluorene	1.99	1.95		ug/L		98	70 - 130
gamma-BHC (Lindane)	1.99	1.97		ug/L		99	70 - 130
gamma-Chlordane	1.99	2.29		ug/L		115	70 - 130
Heptachlor	1.99	2.04		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.34		ug/L		118	70 - 130
Hexachlorobenzene	1.99	1.85		ug/L		93	70 - 130
Hexachlorocyclopentadiene	1.99	1.68		ug/L		84	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.41		ug/L		121	70 - 130
Isophorone	1.99	2.18		ug/L		110	70 - 130
Malathion	1.99	2.14		ug/L		108	70 - 130
Methoxychlor	1.99	1.95		ug/L		98	70 - 130
Metolachlor	1.99	2.40		ug/L		121	70 - 130
Molinate	1.99	2.20		ug/L		111	70 - 130
Naphthalene	1.99	2.00		ug/L		100	70 - 130

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99014/23-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Parathion	1.99	2.30		ug/L		116	70 - 130
Pendimethalin (Penoxaline)	1.99	1.95		ug/L		98	70 - 130
Phenanthrene	1.99	1.88		ug/L		95	70 - 130
Propachlor	1.99	2.07		ug/L		104	70 - 130
Pyrene	1.99	1.95		ug/L		98	70 - 130
Simazine	1.99	2.12		ug/L		107	70 - 130
Terbacil	1.99	2.33		ug/L		117	70 - 130
Terbutylazine	1.99	2.12		ug/L		107	70 - 130
Thiobencarb	1.99	2.23		ug/L		112	70 - 130
trans-Nonachlor	1.99	2.09		ug/L		105	70 - 130
Trifluralin	1.99	1.88		ug/L		95	70 - 130
1-Methylnaphthalene	1.99	2.04		ug/L		102	70 - 130
2-Methylnaphthalene	1.99	2.12		ug/L		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	105		70 - 130

Lab Sample ID: LCSD 380-99014/24-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.99	2.07		ug/L		104	70 - 130	1	20
2,4'-DDE	1.99	1.91		ug/L		96	70 - 130	1	20
2,4'-DDT	1.99	2.10		ug/L		106	70 - 130	2	20
2,4-Dinitrotoluene	1.99	1.83		ug/L		92	70 - 130	2	20
2,6-Dinitrotoluene	1.99	1.87		ug/L		94	70 - 130	3	20
4,4'-DDD	1.99	2.01		ug/L		101	70 - 130	0	20
4,4'-DDE	1.99	1.94		ug/L		98	70 - 130	4	20
4,4'-DDT	1.99	1.92		ug/L		97	70 - 130	2	20
Acenaphthene	1.99	1.87		ug/L		94	70 - 130	1	20
Acenaphthylene	1.99	2.07		ug/L		104	70 - 130	1	20
Acetochlor	1.99	2.29		ug/L		115	70 - 130	3	20
Alachlor	1.99	2.16		ug/L		109	70 - 130	2	20
alpha-BHC	1.99	1.96		ug/L		98	70 - 130	2	20
alpha-Chlordane	1.99	2.19		ug/L		110	70 - 130	0	20
Anthracene	1.99	1.86		ug/L		94	70 - 130	2	20
Atrazine	1.99	1.97		ug/L		99	70 - 130	1	20
Benz(a)anthracene	1.99	1.92		ug/L		97	70 - 130	2	20
Benzo[a]pyrene	1.99	2.10		ug/L		105	70 - 130	2	20
Benzo[b]fluoranthene	1.99	2.08		ug/L		105	70 - 130	2	20
Benzo[g,h,i]perylene	1.99	2.25		ug/L		113	70 - 130	5	20
Benzo[k]fluoranthene	1.99	2.00		ug/L		101	70 - 130	5	20
beta-BHC	1.99	2.02		ug/L		102	70 - 130	0	20
Bis(2-ethylhexyl) phthalate	1.99	2.47		ug/L		124	70 - 130	1	20
Aldrin	1.99	1.74		ug/L		87	70 - 130	2	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99014/24-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Bromacil	1.99	1.89		ug/L		95	70 - 130	6		20
Butachlor	1.99	2.21		ug/L		111	70 - 130	1		20
Butylbenzylphthalate	1.99	2.16		ug/L		109	70 - 130	1		20
Chlorobenzilate	1.99	1.85		ug/L		93	70 - 130	9		20
Chloroneb	1.99	1.88		ug/L		95	70 - 130	1		20
Chlorothalonil (Draconil, Bravo)	1.99	2.01		ug/L		101	70 - 130	1		20
Chlorpyrifos	1.99	2.06		ug/L		104	70 - 130	1		20
Chrysene	1.99	1.87		ug/L		94	70 - 130	4		20
delta-BHC	1.99	2.12		ug/L		107	70 - 130	2		20
Di(2-ethylhexyl)adipate	1.99	2.28		ug/L		115	70 - 130	2		20
Dibenz(a,h)anthracene	1.99	2.26		ug/L		114	70 - 130	3		20
Diclorvos (DDVP)	1.99	2.15		ug/L		108	70 - 130	1		20
Dieldrin	1.99	1.95		ug/L		98	70 - 130	1		20
Diethylphthalate	1.99	2.06		ug/L		103	70 - 130	2		20
Dimethylphthalate	1.99	2.07		ug/L		104	70 - 130	4		20
Di-n-butyl phthalate	3.97	4.22		ug/L		106	70 - 130	1		20
Di-n-octyl phthalate	1.99	2.21		ug/L		111	70 - 130	1		20
Endosulfan I (Alpha)	1.99	2.06		ug/L		104	70 - 130	1		20
Endosulfan II (Beta)	1.99	2.07		ug/L		104	70 - 130	1		20
Endosulfan sulfate	1.99	1.90		ug/L		96	70 - 130	4		20
Endrin	1.99	1.71		ug/L		86	70 - 130	3		20
Endrin aldehyde	1.99	1.45		ug/L		73	60 - 130	4		20
EPTC	1.99	2.17		ug/L		109	70 - 130	0		20
Fluoranthene	1.99	2.05		ug/L		103	70 - 130	2		20
Fluorene	1.99	2.01		ug/L		101	70 - 130	3		20
gamma-BHC (Lindane)	1.99	1.99		ug/L		100	70 - 130	1		20
gamma-Chlordane	1.99	2.20		ug/L		111	70 - 130	4		20
Heptachlor	1.99	2.03		ug/L		102	70 - 130	0		20
Heptachlor epoxide (isomer B)	1.99	2.21		ug/L		111	70 - 130	6		20
Hexachlorobenzene	1.99	1.88		ug/L		95	70 - 130	2		20
Hexachlorocyclopentadiene	1.99	1.65		ug/L		83	70 - 130	2		20
Indeno[1,2,3-cd]pyrene	1.99	2.32		ug/L		117	70 - 130	4		20
Isophorone	1.99	2.14		ug/L		108	70 - 130	2		20
Malathion	1.99	2.11		ug/L		106	70 - 130	2		20
Methoxychlor	1.99	1.97		ug/L		99	70 - 130	1		20
Metolachlor	1.99	2.22		ug/L		112	70 - 130	8		20
Molinate	1.99	2.22		ug/L		112	70 - 130	1		20
Naphthalene	1.99	2.02		ug/L		102	70 - 130	1		20
Parathion	1.99	2.25		ug/L		113	70 - 130	2		20
Pendimethalin (Penoxaline)	1.99	1.92		ug/L		97	70 - 130	1		20
Phenanthrene	1.99	1.89		ug/L		95	70 - 130	0		20
Propachlor	1.99	2.07		ug/L		104	70 - 130	0		20
Pyrene	1.99	1.98		ug/L		99	70 - 130	1		20
Simazine	1.99	2.14		ug/L		108	70 - 130	1		20
Terbacil	1.99	2.20		ug/L		111	70 - 130	6		20
Terbutylazine	1.99	2.21		ug/L		111	70 - 130	4		20
Thiobencarb	1.99	2.24		ug/L		113	70 - 130	0		20
trans-Nonachlor	1.99	2.07		ug/L		104	70 - 130	1		20
Trifluralin	1.99	1.77		ug/L		89	70 - 130	6		20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 380-99014/24-A
Matrix: Water
Analysis Batch: 99247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.99	2.04		ug/L		103	70 - 130	0	20
2-Methylnaphthalene	1.99	2.11		ug/L		106	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	102		70 130

Lab Sample ID: MRL 380-99014/22-A
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0994	0.109		ug/L		110	50 - 150
2,4'-DDE	0.0994	0.110		ug/L		110	50 - 150
2,4'-DDT	0.0994	0.112		ug/L		113	50 - 150
2,4-Dinitrotoluene	0.0994	0.108		ug/L		109	50 - 150
2,6-Dinitrotoluene	0.0994	0.111		ug/L		111	50 - 150
4,4'-DDD	0.0994	0.112		ug/L		113	50 - 150
4,4'-DDE	0.0994	0.0845	J	ug/L		85	50 - 150
4,4'-DDT	0.0994	0.112		ug/L		113	50 - 150
Acenaphthene	0.0994	0.0981	J	ug/L		99	50 - 150
Acenaphthylene	0.0994	0.0911	J	ug/L		92	50 - 150
Acetochlor	0.0994	0.111		ug/L		111	50 - 150
Alachlor	0.0497	0.0581		ug/L		117	50 - 150
alpha-BHC	0.0994	0.116		ug/L		116	50 - 150
alpha-Chlordane	0.0249	<0.029		ug/L		104	50 - 150
Anthracene	0.0199	<0.019		ug/L		90	50 - 150
Atrazine	0.0497	<0.048		ug/L		96	50 - 150
Benz(a)anthracene	0.0497	0.0499	J	ug/L		100	50 - 150
Benzo[a]pyrene	0.0199	0.0171	J	ug/L		86	50 - 150
Benzo[b]fluoranthene	0.0199	0.0217		ug/L		109	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0512		ug/L		103	50 - 150
Benzo[k]fluoranthene	0.0199	0.0205		ug/L		103	50 - 150
beta-BHC	0.0994	0.122		ug/L		122	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.519	J	ug/L		87	50 - 150
Aldrin	0.00994	<0.0099		ug/L		65	50 - 150
Bromacil	0.0994	0.138		ug/L		139	50 - 150
Butachlor	0.0497	0.0599		ug/L		121	50 - 150
Butylbenzylphthalate	0.497	0.582		ug/L		117	50 - 150
Chlorobenzilate	0.0994	0.111		ug/L		112	50 - 150
Chloroneb	0.0994	0.0981	J	ug/L		99	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0994	0.101		ug/L		101	50 - 150
Chlorpyrifos	0.0497	0.0601		ug/L		121	50 - 150
Chrysene	0.0199	0.0223		ug/L		112	50 - 150
delta-BHC	0.0994	0.122		ug/L		122	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.657		ug/L		110	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0462	J	ug/L		93	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99014/22-A
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Diclorvos (DDVP)	0.0497	0.0702		ug/L		141	50 - 150
Dieldrin	0.00994	0.0119		ug/L		120	50 - 150
Diethylphthalate	0.497	0.515		ug/L		104	50 - 150
Dimethylphthalate	0.497	0.545		ug/L		110	50 - 150
Di-n-butyl phthalate	0.497	0.476	J	ug/L		96	49 - 243
Di-n-octyl phthalate	0.0994	0.0995		ug/L		100	50 - 150
Endosulfan I (Alpha)	0.0994	0.102		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0994	0.132		ug/L		133	50 - 150
Endosulfan sulfate	0.0994	0.122		ug/L		123	50 - 150
Endrin	0.00994	0.0104		ug/L		105	50 - 150
Endrin aldehyde	0.0994	0.0939	J	ug/L		94	50 - 150
EPTC	0.0994	0.0995		ug/L		100	50 - 150
Fluoranthene	0.0994	0.103		ug/L		104	50 - 150
Fluorene	0.0497	<0.050		ug/L		99	50 - 150
gamma-BHC (Lindane)	0.00994	0.0110		ug/L		111	50 - 150
gamma-Chlordane	0.0249	0.0316	J	ug/L		127	50 - 150
Heptachlor	0.00994	0.0149		ug/L		150	50 - 150
Heptachlor epoxide (isomer B)	0.00994	0.0141		ug/L		141	50 - 150
Hexachlorobenzene	0.0497	0.0506		ug/L		102	50 - 150
Hexachlorocyclopentadiene	0.0497	0.0464	J	ug/L		93	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0493	J	ug/L		99	50 - 150
Isophorone	0.0994	0.124		ug/L		125	50 - 150
Malathion	0.0994	0.117		ug/L		118	50 - 150
Methoxychlor	0.0497	0.0754	^3+	ug/L		152	50 - 150
Metolachlor	0.0497	0.0604		ug/L		121	50 - 150
Molinate	0.0994	0.118		ug/L		119	50 - 150
Naphthalene	0.0994	0.0955	J	ug/L		96	50 - 150
Parathion	0.0994	0.114		ug/L		114	50 - 150
Pendimethalin (Penoxaline)	0.0994	0.116		ug/L		117	50 - 150
Phenanthrene	0.0398	0.0435		ug/L		109	50 - 150
Propachlor	0.0497	0.0515		ug/L		104	50 - 150
Pyrene	0.0497	0.0486	J	ug/L		98	50 - 150
Simazine	0.0497	0.0543		ug/L		109	50 - 150
Terbacil	0.0994	0.120		ug/L		121	50 - 150
Terbutylazine	0.0994	0.0951	J	ug/L		96	50 - 150
Thiobencarb	0.0994	0.129		ug/L		129	50 - 150
trans-Nonachlor	0.0249	0.0309	J	ug/L		124	50 - 150
Trifluralin	0.0994	0.0962	J	ug/L		97	50 - 150
1-Methylnaphthalene	0.0994	0.0986	J	ug/L		99	50 - 150
2-Methylnaphthalene	0.0994	0.0924	J	ug/L		93	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	103		70 - 130

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103652-O-1-A MS
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.097		1.93	2.02		ug/L		104	70 - 130
2,4'-DDE	<0.097		1.93	1.77		ug/L		92	70 - 130
2,4'-DDT	<0.097		1.93	2.11		ug/L		109	70 - 130
2,4-Dinitrotoluene	<0.097		1.93	1.86		ug/L		96	70 - 130
2,6-Dinitrotoluene	<0.097		1.93	1.94		ug/L		100	70 - 130
4,4'-DDD	<0.097		1.93	2.14		ug/L		111	70 - 130
4,4'-DDE	<0.097		1.93	1.96		ug/L		102	70 - 130
4,4'-DDT	<0.097		1.93	1.96		ug/L		101	70 - 130
Acenaphthene	<0.097		1.93	2.15		ug/L		111	70 - 130
Acenaphthylene	<0.097		1.93	2.06		ug/L		107	70 - 130
Acetochlor	<0.097		1.93	2.17		ug/L		112	70 - 130
Alachlor	<0.048		1.93	2.19		ug/L		113	70 - 130
alpha-BHC	<0.097		1.93	1.89		ug/L		98	70 - 130
alpha-Chlordane	<0.048		1.93	2.06		ug/L		107	70 - 130
Anthracene	<0.019		1.93	1.50		ug/L		77	70 - 130
Atrazine	<0.048		1.93	2.03		ug/L		105	70 - 130
Benz(a)anthracene	<0.048		1.93	1.95		ug/L		101	70 - 130
Benzo[a]pyrene	<0.019		1.93	1.97		ug/L		102	70 - 130
Benzo[b]fluoranthene	<0.019		1.93	2.08		ug/L		108	70 - 130
Benzo[g,h,i]perylene	<0.048		1.93	1.87		ug/L		97	70 - 130
Benzo[k]fluoranthene	<0.019		1.93	2.09		ug/L		108	70 - 130
beta-BHC	<0.097		1.93	1.83		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.93	1.75		ug/L		91	70 - 130
Aldrin	<0.0097		1.93	1.75		ug/L		90	70 - 130
Bromacil	<0.097		1.93	2.23		ug/L		112	70 - 130
Butachlor	<0.048		1.93	2.13		ug/L		110	70 - 130
Butylbenzylphthalate	<0.48		1.93	2.22		ug/L		115	70 - 130
Chlorobenzilate	<0.097		1.93	1.85		ug/L		96	70 - 130
Chloroneb	<0.097		1.93	2.01		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.93	1.71		ug/L		89	70 - 130
Chlorpyrifos	<0.048		1.93	1.94		ug/L		100	70 - 130
Chrysene	<0.019		1.93	2.10		ug/L		109	70 - 130
delta-BHC	<0.097		1.93	1.95		ug/L		101	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.93	2.06		ug/L		106	70 - 130
Dibenz(a,h)anthracene	<0.048		1.93	1.87		ug/L		97	70 - 130
Diclorvos (DDVP)	<0.048		1.93	2.23		ug/L		115	70 - 130
Dieldrin	<0.0097		1.93	1.70		ug/L		88	70 - 130
Diethylphthalate	<0.48		1.93	2.03		ug/L		105	70 - 130
Dimethylphthalate	<0.48		1.93	2.10		ug/L		108	70 - 130
Di-n-butyl phthalate	<0.97		3.87	4.16		ug/L		107	70 - 130
Di-n-octyl phthalate	<0.097		1.93	1.58		ug/L		82	70 - 130
Endosulfan I (Alpha)	<0.097		1.93	1.85		ug/L		96	70 - 130
Endosulfan II (Beta)	<0.097		1.93	2.07		ug/L		107	70 - 130
Endosulfan sulfate	<0.097		1.93	1.93		ug/L		100	70 - 130
Endrin	<0.0097		1.93	1.94		ug/L		100	70 - 130
Endrin aldehyde	<0.097		1.93	1.18		ug/L		61	60 - 130
EPTC	<0.097		1.93	2.03		ug/L		105	70 - 130
Fluoranthene	<0.097		1.93	2.03		ug/L		105	70 - 130

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103652-O-1-A MS
Matrix: Water
Analysis Batch: 99120

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluorene	<0.048		1.93	2.05		ug/L		106	70 - 130
gamma-BHC (Lindane)	<0.0097		1.93	1.80		ug/L		93	70 - 130
gamma-Chlordane	<0.048		1.93	2.00		ug/L		103	70 - 130
Heptachlor	<0.0097		1.93	1.86		ug/L		96	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.93	2.20		ug/L		114	70 - 130
Hexachlorobenzene	<0.048		1.93	1.85		ug/L		96	70 - 130
Hexachlorocyclopentadiene	<0.048		1.93	1.81		ug/L		94	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.93	1.87		ug/L		97	70 - 130
Isophorone	<0.097		1.93	1.94		ug/L		100	70 - 130
Malathion	<0.097		1.93	2.05		ug/L		106	70 - 130
Methoxychlor	<0.048	^3+	1.93	2.28		ug/L		118	70 - 130
Metolachlor	<0.048		1.93	2.39		ug/L		124	70 - 130
Molinate	<0.097		1.93	2.05		ug/L		106	70 - 130
Naphthalene	<0.097		1.93	1.63		ug/L		84	70 - 130
Parathion	<0.097		1.93	2.26		ug/L		117	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.93	1.92		ug/L		99	70 - 130
Phenanthrene	<0.039		1.93	1.81		ug/L		94	70 - 130
Propachlor	<0.048		1.93	1.95		ug/L		101	70 - 130
Pyrene	<0.048		1.93	1.91		ug/L		99	70 - 130
Simazine	<0.048		1.93	1.92		ug/L		100	70 - 130
Terbacil	<0.097		1.93	2.08		ug/L		108	70 - 130
Terbutylazine	<0.097		1.93	2.02		ug/L		104	70 - 130
Thiobencarb	<0.097		1.93	1.94		ug/L		100	70 - 130
trans-Nonachlor	<0.048		1.93	1.93		ug/L		100	70 - 130
Trifluralin	<0.097		1.93	1.69		ug/L		87	70 - 130
1-Methylnaphthalene	<0.097		1.93	1.97		ug/L		102	70 - 130
2-Methylnaphthalene	<0.097		1.93	1.96		ug/L		101	70 - 130
				MS	MS				
Surrogate				%Recovery	Qualifier				Limits
2-Nitro-m-xylene				94					70 - 130
Perylene-d12				96					70 - 130
Triphenylphosphate				108					70 - 130

Lab Sample ID: 380-103673-1 DU
Matrix: Drinking Water
Analysis Batch: 99120

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	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	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103673-1 DU
Matrix: Drinking Water
Analysis Batch: 99120

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<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	0.048		0.0441		ug/L		9	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)	0.014		<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	^3+	<0.048		ug/L		NC	20

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103673-1 DU
Matrix: Drinking Water
Analysis Batch: 99120

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 99014

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
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
Terbutylazine	<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	93		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	102		70 - 130

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

Lab Sample ID: MB 570-460222/1-A
Matrix: Water
Analysis Batch: 466731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460222

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	07/15/24 05:12	08/02/24 19:16	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	45		33 - 139	07/15/24 05:12	08/02/24 19:16	1
2-Fluorobiphenyl (Surr)	59		33 - 126	07/15/24 05:12	08/02/24 19:16	1
2-Fluorophenol (Surr)	41		12 - 120	07/15/24 05:12	08/02/24 19:16	1
Nitrobenzene-d5 (Surr)	53		36 - 120	07/15/24 05:12	08/02/24 19:16	1
Phenol-d6 (Surr)	26		10 - 120	07/15/24 05:12	08/02/24 19:16	1
p-Terphenyl-d14 (Surr)	71		47 - 131	07/15/24 05:12	08/02/24 19:16	1

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

Lab Sample ID: MB 570-460222/1-A
Matrix: Water
Analysis Batch: 466820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460222

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Lab Sample ID: MB 570-460222/1-A
Matrix: Water
Analysis Batch: 466820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460222

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2,4,6-Trichlorophenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2,4-Dichlorophenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2,4-Dinitrophenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2,6-Dichlorophenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Chloronaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Chlorophenol	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Methylphenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Nitroaniline	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
2-Nitrophenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
3/4-Methylphenol	<2.0		2.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
3-Nitroaniline	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
4,6-Dinitro-2-methylphenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Chloro-3-methylphenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Chloroaniline	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Nitroaniline	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
4-Nitrophenol	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
Acenaphthene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Acenaphthylene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Aniline	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Anthracene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzidine	<5.0		5.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzo[a]anthracene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzo[a]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzoic acid	<10		10	ug/L		07/15/24 05:12	08/02/24 12:18	1
Benzyl alcohol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
bis (2-Chloroisopropyl) ether	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Chrysene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Dibenzofuran	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Fluorene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Hexachloroethane	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Naphthalene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Nitrobenzene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
N-Nitrosodi-n-propylamine	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
N-Nitrosodiphenylamine	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Pentachlorophenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1
Phenanthrene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Phenol	<1.0		1.0	ug/L		07/15/24 05:12	08/02/24 12:18	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 570-460222/1-A
Matrix: Water
Analysis Batch: 466820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460222

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	<0.20		0.20	ug/L		07/15/24 05:12	08/02/24 12:18	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	70		28 - 127			07/15/24 05:12	08/02/24 12:18	1
2-Fluorobiphenyl (Surr)	61		31 - 120			07/15/24 05:12	08/02/24 12:18	1
2-Fluorophenol (Surr)	53		17 - 120			07/15/24 05:12	08/02/24 12:18	1
Nitrobenzene-d5 (Surr)	68		27 - 120			07/15/24 05:12	08/02/24 12:18	1
Phenol-d6 (Surr)	37		10 - 120			07/15/24 05:12	08/02/24 12:18	1
p-Terphenyl-d14 (Surr)	80		45 - 120			07/15/24 05:12	08/02/24 12:18	1

Lab Sample ID: LCS 570-460222/2-A
Matrix: Water
Analysis Batch: 465376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	20.0	14.5		ug/L		72	47 - 120
2,4,5-Trichlorophenol	20.0	17.9		ug/L		89	57 - 120
2,4,6-Trichlorophenol	20.0	16.5		ug/L		82	52 - 129
2,4-Dichlorophenol	20.0	15.8		ug/L		79	53 - 122
2,4-Dinitrophenol	20.0	18.3		ug/L		92	1 - 173
2,6-Dichlorophenol	20.0	16.0		ug/L		80	50 - 120
2-Chloronaphthalene	20.0	14.5		ug/L		73	65 - 120
2-Chlorophenol	20.0	15.6		ug/L		78	36 - 120
2-Methylnaphthalene	20.0	14.3		ug/L		71	43 - 120
2-Methylphenol	20.0	15.8		ug/L		79	46 - 120
2-Nitroaniline	20.0	17.4		ug/L		87	51 - 125
2-Nitrophenol	20.0	14.2		ug/L		71	45 - 167
3/4-Methylphenol	40.0	30.8		ug/L		77	29 - 120
3-Nitroaniline	20.0	9.53	*-	ug/L		48	62 - 129
4,6-Dinitro-2-methylphenol	20.0	14.7		ug/L		74	53 - 130
4-Bromophenyl phenyl ether	20.0	16.0		ug/L		80	65 - 120
4-Chloro-3-methylphenol	20.0	16.5		ug/L		83	41 - 128
4-Chloroaniline	20.0	3.21	J *-	ug/L		16	51 - 120
4-Chlorophenyl phenyl ether	20.0	15.3		ug/L		76	38 - 145
4-Nitroaniline	20.0	16.1		ug/L		80	64 - 129
4-Nitrophenol	20.0	8.97		ug/L		45	13 - 129
Acenaphthene	20.0	14.9		ug/L		74	60 - 132
Acenaphthylene	20.0	17.4		ug/L		87	54 - 126
Aniline	20.0	0.782	*-	ug/L		4	52 - 121
Anthracene	20.0	16.2		ug/L		81	43 - 120
Benzidine	20.0	<0.94	*-	ug/L		0	20 - 164
Benzo[a]anthracene	20.0	16.1		ug/L		81	42 - 133
Benzo[a]pyrene	20.0	17.0		ug/L		85	32 - 148
Benzo[b]fluoranthene	20.0	18.3		ug/L		91	42 - 140
Benzo[g,h,i]perylene	20.0	19.1		ug/L		96	1 - 195
Benzo[k]fluoranthene	20.0	18.3		ug/L		92	25 - 146
Benzoic acid	20.0	8.05	J	ug/L		40	20 - 120
Benzyl alcohol	20.0	18.8		ug/L		94	44 - 122

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 570-460222/2-A
Matrix: Water
Analysis Batch: 465376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethoxy)methane	20.0	14.2		ug/L		71	49 - 165
Bis(2-chloroethyl)ether	20.0	14.8		ug/L		74	43 - 126
bis (2-Chloroisopropyl) ether	20.0	15.3		ug/L		77	63 - 139
Chrysene	20.0	16.2		ug/L		81	44 - 140
Dibenz(a,h)anthracene	20.0	17.0		ug/L		85	1 - 200
Dibenzofuran	20.0	15.4		ug/L		77	48 - 120
Fluoranthene	20.0	17.3		ug/L		86	43 - 121
Fluorene	20.0	15.8		ug/L		79	70 - 120
Hexachloroethane	20.0	13.0		ug/L		65	55 - 120
Indeno[1,2,3-cd]pyrene	20.0	15.9		ug/L		79	1 - 151
Naphthalene	20.0	13.7		ug/L		68	36 - 120
Nitrobenzene	20.0	14.7		ug/L		74	54 - 158
N-Nitrosodi-n-propylamine	20.0	17.1		ug/L		85	14 - 198
N-Nitrosodiphenylamine	20.0	20.1		ug/L		101	65 - 133
Pentachlorophenol	20.0	15.5		ug/L		78	38 - 152
Phenanthrene	20.0	15.6		ug/L		78	65 - 120
Phenol	20.0	8.10		ug/L		41	17 - 120
Pyrene	20.0	15.5		ug/L		78	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	73		28 - 127
2-Fluorobiphenyl (Surr)	70		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	69		27 - 120
Phenol-d6 (Surr)	38		10 - 120
p-Terphenyl-d14 (Surr)	73		45 - 120

Lab Sample ID: LCSD 570-460222/3-A
Matrix: Water
Analysis Batch: 465376

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 460222

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	13.5		ug/L		67	47 - 120	7	20
2,4,5-Trichlorophenol	20.0	18.3		ug/L		92	57 - 120	2	20
2,4,6-Trichlorophenol	20.0	17.2		ug/L		86	52 - 129	4	35
2,4-Dichlorophenol	20.0	15.0		ug/L		75	53 - 122	5	30
2,4-Dinitrophenol	20.0	19.9		ug/L		100	1 - 173	8	79
2,6-Dichlorophenol	20.0	15.0		ug/L		75	50 - 120	6	20
2-Chloronaphthalene	20.0	14.9		ug/L		74	65 - 120	2	15
2-Chlorophenol	20.0	15.6		ug/L		78	36 - 120	0	37
2-Methylnaphthalene	20.0	13.3		ug/L		66	43 - 120	7	20
2-Methylphenol	20.0	15.6		ug/L		78	46 - 120	1	20
2-Nitroaniline	20.0	18.0		ug/L		90	51 - 125	4	20
2-Nitrophenol	20.0	13.0		ug/L		65	45 - 167	9	33
3/4-Methylphenol	40.0	30.6		ug/L		76	29 - 120	1	20
3-Nitroaniline	20.0	15.2	*1	ug/L		76	62 - 129	46	20
4,6-Dinitro-2-methylphenol	20.0	15.8		ug/L		79	53 - 130	7	122
4-Bromophenyl phenyl ether	20.0	17.4		ug/L		87	65 - 120	8	26

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCSD 570-460222/3-A
Matrix: Water
Analysis Batch: 465376

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 460222

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chloro-3-methylphenol	20.0	15.6		ug/L		78	41 - 128	5	44
4-Chloroaniline	20.0	3.06	J *	ug/L		15	51 - 120	5	20
4-Chlorophenyl phenyl ether	20.0	16.0		ug/L		80	38 - 145	5	36
4-Nitroaniline	20.0	17.9		ug/L		89	64 - 129	11	20
4-Nitrophenol	20.0	9.55		ug/L		48	13 - 129	6	79
Acenaphthene	20.0	15.4		ug/L		77	60 - 132	4	29
Acenaphthylene	20.0	18.2		ug/L		91	54 - 126	4	45
Aniline	20.0	1.54	*- *1	ug/L		8	52 - 121	66	21
Anthracene	20.0	17.5		ug/L		88	43 - 120	8	40
Benzidine	20.0	<0.94	*-	ug/L		0	20 - 164	NC	30
Benzo[a]anthracene	20.0	17.8		ug/L		89	42 - 133	10	32
Benzo[a]pyrene	20.0	18.6		ug/L		93	32 - 148	9	43
Benzo[b]fluoranthene	20.0	19.7		ug/L		99	42 - 140	8	43
Benzo[g,h,i]perylene	20.0	21.5		ug/L		108	1 - 195	12	61
Benzo[k]fluoranthene	20.0	20.6		ug/L		103	25 - 146	12	38
Benzoic acid	20.0	7.66	J	ug/L		38	20 - 120	5	30
Benzyl alcohol	20.0	17.2		ug/L		86	44 - 122	9	20
Bis(2-chloroethoxy)methane	20.0	13.6		ug/L		68	49 - 165	4	32
Bis(2-chloroethyl)ether	20.0	14.5		ug/L		73	43 - 126	2	65
bis (2-Chloroisopropyl) ether	20.0	15.2		ug/L		76	63 - 139	1	46
Chrysene	20.0	17.5		ug/L		88	44 - 140	8	53
Dibenz(a,h)anthracene	20.0	18.4		ug/L		92	1 - 200	8	75
Dibenzofuran	20.0	16.4		ug/L		82	48 - 120	6	20
Fluoranthene	20.0	19.1		ug/L		95	43 - 121	10	40
Fluorene	20.0	16.6		ug/L		83	70 - 120	5	23
Hexachloroethane	20.0	12.7		ug/L		64	55 - 120	2	32
Indeno[1,2,3-cd]pyrene	20.0	18.0		ug/L		90	1 - 151	13	60
Naphthalene	20.0	12.4		ug/L		62	36 - 120	10	39
Nitrobenzene	20.0	13.3		ug/L		66	54 - 158	10	37
N-Nitrosodi-n-propylamine	20.0	16.9		ug/L		84	14 - 198	1	52
N-Nitrosodiphenylamine	20.0	21.7		ug/L		109	65 - 133	8	20
Pentachlorophenol	20.0	16.6		ug/L		83	38 - 152	7	52
Phenanthrene	20.0	16.9		ug/L		84	65 - 120	8	24
Phenol	20.0	8.08		ug/L		40	17 - 120	0	39
Pyrene	20.0	16.8		ug/L		84	70 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	81		28 - 127
2-Fluorobiphenyl (Surr)	71		31 - 120
2-Fluorophenol (Surr)	51		17 - 120
Nitrobenzene-d5 (Surr)	62		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	80		45 - 120

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 570-460706/6
Matrix: Water
Analysis Batch: 460706

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			07/16/24 13:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134				07/16/24 13:13	1

Lab Sample ID: LCS 570-460706/4
Matrix: Water
Analysis Batch: 460706

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	401		ug/L		100	78 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		38 - 134				

Lab Sample ID: LCSD 570-460706/5
Matrix: Water
Analysis Batch: 460706

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	400		ug/L		100	78 - 120	0	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		38 - 134						

Lab Sample ID: MRL 570-460706/3
Matrix: Water
Analysis Batch: 460706

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	11.6		ug/L		116	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		38 - 134				

Lab Sample ID: 380-103360-C-3 MS
Matrix: Water
Analysis Batch: 460706

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	372		ug/L		93	68 - 122
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		38 - 134						

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103360-C-3 MSD
Matrix: Water
Analysis Batch: 460706

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	376		ug/L		94	68 - 122	1	18
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	100		38 - 134								

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

Lab Sample ID: MBL 380-98731/13-A
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 98731

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		07/12/24 11:30	07/12/24 20:22	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		07/12/24 11:30	07/12/24 20:22	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		07/12/24 11:30	07/12/24 20:22	1
Surrogate	%Recovery	MBL Qualifier	MBL Limits	Prepared	Analyzed	Dil Fac		
1,2-Dibromopropane (Surr)	104		60 - 140	07/12/24 11:30	07/12/24 20:22	1		

Lab Sample ID: LCS 380-98731/38-A
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.209		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	0.200	0.195		ug/L		98	70 - 130
1,2-Dibromoethane	0.200	0.217		ug/L		108	70 - 130
Surrogate	%Recovery	LCS Qualifier	LCS Limits				
1,2-Dibromopropane (Surr)	96		60 - 140				

Lab Sample ID: MRL 380-98731/11-A
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0200	0.0176	J	ug/L		88	60 - 140
Surrogate	%Recovery	MRL Qualifier	MRL Limits				
1,2-Dibromopropane (Surr)	101		60 - 140				

Lab Sample ID: MRL 380-98731/12-A
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0484		ug/L		97	60 - 140

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-98731/12-A
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.0100	0.0110		ug/L		110	60 - 140
1,2-Dibromoethane	0.0100	0.0113		ug/L		113	60 - 140
Surrogate		MRL %Recovery	MRL Qualifier				Limits
1,2-Dibromopropane (Surr)		101					60 - 140

Lab Sample ID: 380-102882-D-1-A MS
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.26	1.13		ug/L		90	65 - 135
1,2-Dibromo-3-Chloropropane	<0.0099		0.251	0.225		ug/L		90	65 - 135
1,2-Dibromoethane	<0.0099		0.251	0.253		ug/L		101	65 - 135
Surrogate		MS %Recovery	MS Qualifier						Limits
1,2-Dibromopropane (Surr)		87							60 - 140

Lab Sample ID: 380-102882-B-2-A DU
Matrix: Water
Analysis Batch: 99024

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 98731

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
1,2,3-Trichloropropane	<0.020		<0.020		ug/L		NC	20
1,2-Dibromo-3-Chloropropane	<0.0099		<0.010		ug/L		NC	20
1,2-Dibromoethane	<0.0099		<0.010		ug/L		NC	20
Surrogate		DU %Recovery	DU Qualifier					Limits
1,2-Dibromopropane (Surr)		97						60 - 140

Lab Sample ID: MBL 380-99699/4-A
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99699

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		07/18/24 15:00	07/18/24 19:09	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		07/18/24 15:00	07/18/24 19:09	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		07/18/24 15:00	07/18/24 19:09	1
Surrogate		MBL %Recovery	MBL Qualifier			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)		97				07/18/24 15:00	07/18/24 19:09	1

Lab Sample ID: LCS 380-99699/29-A
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.202		ug/L		101	70 - 130

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-99699/29-A
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.200	0.186		ug/L		93	70 - 130
1,2-Dibromoethane	0.200	0.184		ug/L		92	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dibromopropane (Surr)	93		60 - 140				

Lab Sample ID: MRL 380-99699/2-A
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99699

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0200	0.0246		ug/L		123	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	94		60 - 140				

Lab Sample ID: MRL 380-99699/3-A
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99699

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0524		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.0105		ug/L		105	60 - 140
1,2-Dibromoethane	0.0100	0.00986	J	ug/L		99	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	100		60 - 140				

Lab Sample ID: 380-103828-AP-1-A MS
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99699

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.27	1.13		ug/L		89	65 - 135
1,2-Dibromo-3-Chloropropane	<0.010		0.254	0.233		ug/L		91	65 - 135
1,2-Dibromoethane	<0.010		0.254	0.213		ug/L		84	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dibromopropane (Surr)	91		60 - 140						

Lab Sample ID: 380-104331-C-1-A DU
Matrix: Water
Analysis Batch: 99859

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 99699

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

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

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

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 380-99012/3-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99012

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Toxaphene	<0.50		0.50	ug/L		07/16/24 14:20	07/16/24 17:15	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1016	<0.070		0.070	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1221	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1232	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1242	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1248	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1254	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1
PCB-1260	<0.070		0.070	ug/L		07/16/24 14:20	07/16/24 17:15	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		07/16/24 14:20	07/16/24 17:15	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	101		70 - 130	07/16/24 14:20	07/16/24 17:15	1

Lab Sample ID: LCS 380-99012/31-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99012

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	103		70 - 130

Lab Sample ID: LCSD 380-99012/32-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99012

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	104		70 - 130

Lab Sample ID: MRL 380-99012/1-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99012

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	103		70 - 130

Lab Sample ID: MRL 380-99012/2-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99012

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chlordane (n.o.s.)	0.100	0.101		ug/L		101	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MRL 380-99012/2-A
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99012

	MRL %Recovery	MRL Qualifier	Limits
Surrogate			
Tetrachloro-m-xylene	101		70 - 130

Lab Sample ID: 380-102321-AN-1-A MS
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.10		0.507	0.484		ug/L		95	65 - 135
Surrogate									
Tetrachloro-m-xylene	105		70 - 130						

Lab Sample ID: 380-102321-AP-1-A MS
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99012

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

Lab Sample ID: 380-102326-AL-1-A MS
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99012

	MS %Recovery	MS Qualifier	Limits
Surrogate			
Tetrachloro-m-xylene	103		70 - 130

Lab Sample ID: 380-102326-AR-1-A MS
Matrix: Water
Analysis Batch: 99738

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.10		0.497	0.478		ug/L		96	65 - 135
Surrogate									
Tetrachloro-m-xylene	104		70 - 130						

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

Lab Sample ID: MB 570-460900/1-A
Matrix: Water
Analysis Batch: 462205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460900

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		07/16/24 16:05	07/20/24 13:31	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		07/16/24 16:05	07/20/24 13:31	1
C8-C18	<25		25	ug/L		07/16/24 16:05	07/20/24 13:31	1

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: MB 570-460900/1-A
Matrix: Water
Analysis Batch: 462205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460900

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>n</i> -Octacosane (Surr)	100		60 - 130	07/16/24 16:05	07/20/24 13:31	1

Lab Sample ID: LCS 570-460900/2-A
Matrix: Water
Analysis Batch: 462205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460900

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
C10-C28	1600	1430		ug/L		89	56 - 127		

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>n</i> -Octacosane (Surr)	104		60 - 130

Lab Sample ID: LCSD 570-460900/3-A
Matrix: Water
Analysis Batch: 462205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 460900

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
C10-C28	1600	1520		ug/L		95	56 - 127	6	23

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
<i>n</i> -Octacosane (Surr)	106		60 - 130

Lab Sample ID: MRL 570-460900/4-A
Matrix: Water
Analysis Batch: 462205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460900

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
C10-C28	0.0200	<0.020		mg/L		99	50 - 150		

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
<i>n</i> -Octacosane (Surr)	98		60 - 130

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

Lab Sample ID: MB 570-460498/3
Matrix: Water
Analysis Batch: 460498

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Ethanol	<0.10		0.10	mg/L			07/15/24 17:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Hexafluoro-2-propanol (Surr)	96		54 - 120		07/15/24 17:46	1

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 570-460498/4
Matrix: Water
Analysis Batch: 460498

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	2.00	2.04		mg/L		102	78 - 131
Surrogate	%Recovery	LCS Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	110		54 - 120				

Lab Sample ID: LCSD 570-460498/5
Matrix: Water
Analysis Batch: 460498

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethanol	2.00	2.19		mg/L		110	78 - 131	7	25
Surrogate	%Recovery	LCSD Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	109		54 - 120						

Lab Sample ID: MRL 570-460498/6
Matrix: Water
Analysis Batch: 460498

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	0.100	0.0849	J	mg/L		85	50 - 150
Surrogate	%Recovery	MRL Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	91		54 - 120				

Lab Sample ID: 380-103361-AI-1 MS
Matrix: Water
Analysis Batch: 460498

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	<0.10		2.00	2.06		mg/L		103	20 - 173
Surrogate	%Recovery	MS Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	98		54 - 120						

Lab Sample ID: 380-103361-AI-1 MSD
Matrix: Water
Analysis Batch: 460498

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethanol	<0.10		2.00	2.05		mg/L		103	20 - 173	1	21
Surrogate	%Recovery	MSD Qualifier	Limits								
Hexafluoro-2-propanol (Surr)	105		54 - 120								

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-98689/41
Matrix: Water
Analysis Batch: 98689

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			07/12/24 02:04	1
Nitrite as N	<0.050		0.050	mg/L			07/12/24 02:04	1

Lab Sample ID: LCS 380-98689/44
Matrix: Water
Analysis Batch: 98689

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	2.46		mg/L		98	90 - 110
Nitrite as N	1.00	0.990		mg/L		99	90 - 110

Lab Sample ID: LCSD 380-98689/45
Matrix: Water
Analysis Batch: 98689

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	2.39		mg/L		96	90 - 110	3	20
Nitrite as N	1.00	0.996		mg/L		100	90 - 110	1	20

Lab Sample ID: MRL 380-98689/42
Matrix: Water
Analysis Batch: 98689

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	0.00970	J	mg/L		78	50 - 150

Lab Sample ID: MRL 380-98689/43
Matrix: Water
Analysis Batch: 98689

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	0.0422	J	mg/L		84	50 - 150
Nitrite as N	0.0500	0.0393	J	mg/L		79	50 - 150

Lab Sample ID: 380-103542-D-1 MS
Matrix: Water
Analysis Batch: 98689

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	<0.050		1.25	1.23		mg/L		96	80 - 120
Nitrite as N	<0.050		0.500	0.504		mg/L		101	80 - 120

Lab Sample ID: 380-103542-D-1 MSD
Matrix: Water
Analysis Batch: 98689

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	<0.050		1.25	1.20		mg/L		94	80 - 120	2	20
Nitrite as N	<0.050		0.500	0.495		mg/L		99	80 - 120	2	20

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-103655-E-2 MS
Matrix: Water
Analysis Batch: 98689

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	0.55		2.50	2.94		mg/L		96	80 - 120
Nitrite as N	<0.10		1.00	0.958		mg/L		96	80 - 120

Lab Sample ID: 380-103655-E-2 MSD
Matrix: Water
Analysis Batch: 98689

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	0.55		2.50	2.91		mg/L		94	80 - 120	1	20
Nitrite as N	<0.10		1.00	0.944		mg/L		94	80 - 120	2	20

Lab Sample ID: MB 380-98690/41
Matrix: Water
Analysis Batch: 98690

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			07/12/24 02:04	1
Sulfate	<0.25		0.25	mg/L			07/12/24 02:04	1

Lab Sample ID: LCS 380-98690/44
Matrix: Water
Analysis Batch: 98690

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	25.2		mg/L		101	90 - 110
Sulfate	50.0	49.9		mg/L		100	90 - 110

Lab Sample ID: LCSD 380-98690/45
Matrix: Water
Analysis Batch: 98690

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	50.3		mg/L		101	90 - 110	1	20

Lab Sample ID: MRL 380-98690/42
Matrix: Water
Analysis Batch: 98690

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	0.113	J	mg/L		91	50 - 150
Sulfate	0.250	0.235	J	mg/L		94	50 - 150

Lab Sample ID: MRL 380-98690/43
Matrix: Water
Analysis Batch: 98690

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	0.445	J	mg/L		89	50 - 150
Sulfate	0.999	0.926		mg/L		93	50 - 150

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 380-103542-D-1 MS
Matrix: Water
Analysis Batch: 98690

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	1.4		12.5	14.1		mg/L		102	80 - 120
Sulfate	1.9		25.0	27.3		mg/L		102	80 - 120

Lab Sample ID: 380-103542-D-1 MSD
Matrix: Water
Analysis Batch: 98690

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	1.4		12.5	13.8		mg/L		100	80 - 120	2	20
Sulfate	1.9		25.0	26.8		mg/L		100	80 - 120	2	20

Lab Sample ID: 380-103655-E-2 MS
Matrix: Water
Analysis Batch: 98690

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	72		25.0	94.7		mg/L		92	80 - 120
Sulfate	9.6		50.0	60.4		mg/L		102	80 - 120

Lab Sample ID: 380-103655-E-2 MSD
Matrix: Water
Analysis Batch: 98690

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	72		25.0	94.7		mg/L		92	80 - 120	0	20
Sulfate	9.6		50.0	59.8		mg/L		100	80 - 120	1	20

Lab Sample ID: MB 380-99468/5
Matrix: Water
Analysis Batch: 99468

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			07/16/24 15:31	1

Lab Sample ID: LCS 380-99468/6
Matrix: Water
Analysis Batch: 99468

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	98.4		ug/L		98	90 - 110

Lab Sample ID: LCSD 380-99468/7
Matrix: Water
Analysis Batch: 99468

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	100	98.0		ug/L		98	90 - 110	0	10

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-99468/4
Matrix: Water
Analysis Batch: 99468

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	5.16		ug/L		103	75 - 125

Lab Sample ID: 380-103973-BR-1 MS
Matrix: Water
Analysis Batch: 99468

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	49.6		ug/L		99	80 - 120

Lab Sample ID: 380-103973-BR-1 MSD
Matrix: Water
Analysis Batch: 99468

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	48.8		ug/L		98	80 - 120	2	20

Lab Sample ID: MB 380-99559/8
Matrix: Water
Analysis Batch: 99559

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			07/17/24 18:37	1

Lab Sample ID: LCS 380-99559/9
Matrix: Water
Analysis Batch: 99559

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	96.9		ug/L		97	90 - 110

Lab Sample ID: LCSD 380-99559/10
Matrix: Water
Analysis Batch: 99559

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	99.5		ug/L		100	90 - 110	3	10

Lab Sample ID: MRL 380-99559/11
Matrix: Water
Analysis Batch: 99559

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	5.75		ug/L		115	75 - 125

Lab Sample ID: 380-103836-C-1 MS
Matrix: Water
Analysis Batch: 99559

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	240		50.0	289	4	ug/L		92	80 - 120

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 380-103836-C-1 MSD
Matrix: Water
Analysis Batch: 99559

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	240		50.0	295	4	ug/L		104	80 - 120	2	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 380-99245/156
Matrix: Water
Analysis Batch: 99245

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			07/15/24 23:24	1
Magnesium	<0.10		0.10	mg/L			07/15/24 23:24	1
Potassium	<1.0		1.0	mg/L			07/15/24 23:24	1
Sodium	<1.0		1.0	mg/L			07/15/24 23:24	1

Lab Sample ID: LCS 380-99245/160
Matrix: Water
Analysis Batch: 99245

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	54.1		mg/L		108	85 - 115
Magnesium	20.0	20.9		mg/L		104	85 - 115
Potassium	20.0	21.2		mg/L		106	85 - 115
Sodium	50.0	52.3		mg/L		105	85 - 115

Lab Sample ID: LCSD 380-99245/161
Matrix: Water
Analysis Batch: 99245

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	54.5		mg/L		109	85 - 115	1	20
Magnesium	20.0	21.2		mg/L		106	85 - 115	1	20
Potassium	20.0	21.5		mg/L		107	85 - 115	1	20
Sodium	50.0	53.3		mg/L		107	85 - 115	2	20

Lab Sample ID: LLCS 380-99245/159
Matrix: Water
Analysis Batch: 99245

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	1.06		mg/L		106	50 - 150
Magnesium	0.100	0.0981	J	mg/L		98	50 - 150
Potassium	1.00	0.801	J	mg/L		80	50 - 150
Sodium	1.00	1.05		mg/L		105	50 - 150

Lab Sample ID: 380-103666-A-5 MS
Matrix: Water
Analysis Batch: 99245

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	14		50.0	63.3		mg/L		99	70 - 130

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103666-A-5 MS
Matrix: Water
Analysis Batch: 99245

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	3.1		20.0	22.8		mg/L		99	70 - 130
Potassium	<1.0		20.0	21.4		mg/L		103	70 - 130
Sodium	9.6		50.0	57.9		mg/L		97	70 - 130

Lab Sample ID: 380-103666-A-5 MSD
Matrix: Water
Analysis Batch: 99245

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	14		50.0	66.4		mg/L		106	70 - 130	5	20
Magnesium	3.1		20.0	23.9		mg/L		104	70 - 130	5	20
Potassium	<1.0		20.0	22.5		mg/L		109	70 - 130	5	20
Sodium	9.6		50.0	60.8		mg/L		102	70 - 130	5	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MBL 380-98998/94
Matrix: Water
Analysis Batch: 98998

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			07/12/24 18:32	1
Arsenic	<0.49		1.0	ug/L			07/12/24 18:32	1
Beryllium	<0.18		1.0	ug/L			07/12/24 18:32	1
Cadmium	<0.081		0.50	ug/L			07/12/24 18:32	1
Chromium	<0.80		1.0	ug/L			07/12/24 18:32	1
Copper	<0.27		2.0	ug/L			07/12/24 18:32	1
Lead	<0.29		0.50	ug/L			07/12/24 18:32	1
Nickel	<0.38		5.0	ug/L			07/12/24 18:32	1
Selenium	<1.0		5.0	ug/L			07/12/24 18:32	1
Silver	<0.40		0.50	ug/L			07/12/24 18:32	1
Thallium	<0.32		1.0	ug/L			07/12/24 18:32	1
Zinc	<4.3		20	ug/L			07/12/24 18:32	1

Lab Sample ID: LCS 380-98998/96
Matrix: Water
Analysis Batch: 98998

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	49.4		ug/L		99	85 - 115
Arsenic	50.0	49.2		ug/L		98	85 - 115
Beryllium	25.0	23.5		ug/L		94	85 - 115
Cadmium	25.0	23.9		ug/L		96	85 - 115
Chromium	50.0	52.0		ug/L		104	85 - 115
Copper	50.0	50.3		ug/L		101	85 - 115
Lead	50.0	49.7		ug/L		99	85 - 115
Nickel	50.0	49.3		ug/L		99	85 - 115
Selenium	50.0	47.5		ug/L		95	85 - 115
Silver	25.0	24.5		ug/L		98	85 - 115
Thallium	50.0	48.9		ug/L		98	85 - 115

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: LCS 380-98998/96
Matrix: Water
Analysis Batch: 98998

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

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

Lab Sample ID: LCSD 380-98998/97
Matrix: Water
Analysis Batch: 98998

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	49.8		ug/L		100	85 - 115	1	20
Arsenic	50.0	48.7		ug/L		97	85 - 115	1	20
Beryllium	25.0	23.6		ug/L		94	85 - 115	0	20
Cadmium	25.0	24.3		ug/L		97	85 - 115	1	20
Chromium	50.0	51.3		ug/L		103	85 - 115	1	20
Copper	50.0	49.9		ug/L		100	85 - 115	1	20
Lead	50.0	50.0		ug/L		100	85 - 115	0	20
Nickel	50.0	48.9		ug/L		98	85 - 115	1	20
Selenium	50.0	46.8		ug/L		94	85 - 115	1	20
Silver	25.0	25.1		ug/L		101	85 - 115	3	20
Thallium	50.0	50.1		ug/L		100	85 - 115	2	20
Zinc	50.0	48.6		ug/L		97	85 - 115	1	20

Lab Sample ID: LLCS 380-98998/95
Matrix: Water
Analysis Batch: 98998

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	1.02		ug/L		102	50 - 150
Arsenic	1.00	1.24		ug/L		124	50 - 150
Beryllium	1.00	0.972	J	ug/L		97	50 - 150
Cadmium	0.500	0.490	J	ug/L		98	50 - 150
Chromium	1.00	1.17		ug/L		117	50 - 150
Copper	2.00	2.12		ug/L		106	50 - 150
Lead	0.500	0.575		ug/L		115	50 - 150
Nickel	5.00	4.95	J	ug/L		99	50 - 150
Selenium	5.00	4.99	J	ug/L		100	50 - 150
Silver	0.500	0.474	J	ug/L		95	50 - 150
Thallium	1.00	1.02		ug/L		102	50 - 150
Zinc	20.0	21.0		ug/L		105	50 - 150

Lab Sample ID: 380-103673-1 MS
Matrix: Drinking Water
Analysis Batch: 98998

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
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	52.9		ug/L		106	70 - 130
Arsenic	<1.0		50.0	50.4		ug/L		101	70 - 130
Beryllium	<1.0		25.0	24.5		ug/L		98	70 - 130
Cadmium	<0.50		25.0	24.5		ug/L		98	70 - 130
Chromium	2.3		50.0	51.7		ug/L		99	70 - 130
Copper	4.7		50.0	50.2		ug/L		91	70 - 130

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103673-1 MS
Matrix: Drinking Water
Analysis Batch: 98998

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	<0.50		50.0	47.7		ug/L		95	70 - 130
Nickel	<5.0		50.0	45.1		ug/L		90	70 - 130
Selenium	<5.0		50.0	52.4		ug/L		101	70 - 130
Silver	<0.50	F1	25.0	<0.50	F1	ug/L		0	70 - 130
Thallium	<1.0		50.0	47.8		ug/L		96	70 - 130
Zinc	<20		50.0	61.1		ug/L		94	70 - 130

Lab Sample ID: 380-103673-1 MSD
Matrix: Drinking Water
Analysis Batch: 98998

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
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	53.1		ug/L		106	70 - 130	0	20
Arsenic	<1.0		50.0	52.3		ug/L		105	70 - 130	4	20
Beryllium	<1.0		25.0	25.1		ug/L		101	70 - 130	3	20
Cadmium	<0.50		25.0	25.3		ug/L		101	70 - 130	4	20
Chromium	2.3		50.0	54.2		ug/L		104	70 - 130	5	20
Copper	4.7		50.0	52.3		ug/L		95	70 - 130	4	20
Lead	<0.50		50.0	48.8		ug/L		98	70 - 130	2	20
Nickel	<5.0		50.0	47.2		ug/L		94	70 - 130	5	20
Selenium	<5.0		50.0	54.0		ug/L		104	70 - 130	3	20
Silver	<0.50	F1	25.0	<0.50	F1	ug/L		0	70 - 130	NC	20
Thallium	<1.0		50.0	47.6		ug/L		95	70 - 130	0	20
Zinc	<20		50.0	63.6		ug/L		99	70 - 130	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 810-105810/1-A
Matrix: Water
Analysis Batch: 105848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 105810

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		07/15/24 12:54	07/15/24 17:28	1

Lab Sample ID: LCS 810-105810/3-A
Matrix: Water
Analysis Batch: 105848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.03		ug/L		103	85 - 115

Lab Sample ID: LLCS 810-105810/2-A
Matrix: Water
Analysis Batch: 105848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105810

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.100	0.0981	J	ug/L		98	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 810-109988-A-4-B MS
Matrix: Water
Analysis Batch: 105848

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 105810

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.10		1.00	1.01		ug/L		101	70 - 130

Lab Sample ID: 810-109988-A-4-C MSD
Matrix: Water
Analysis Batch: 105848

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 105810

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.10		1.00	1.01		ug/L		101	70 - 130	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-99128/1
Matrix: Water
Analysis Batch: 99128

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			07/12/24 12:15	1
Bicarbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			07/12/24 12:15	1
Carbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			07/12/24 12:15	1

Lab Sample ID: LCS 380-99128/3
Matrix: Water
Analysis Batch: 99128

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	98.0		mg/L		98	90 - 110

Lab Sample ID: LCSD 380-99128/18
Matrix: Water
Analysis Batch: 99128

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	98.7		mg/L		99	90 - 110	1	20

Lab Sample ID: LLCS 380-99128/4
Matrix: Water
Analysis Batch: 99128

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	20.0	19.4		mg/L		97	90 - 110

Lab Sample ID: MRL 380-99128/2
Matrix: Water
Analysis Batch: 99128

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	2.00	1.84	J	mg/L		92	50 - 150

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 380-103303-Y-1 MS
Matrix: Water
Analysis Batch: 99128

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	47		100	149		mg/L		102	80 - 120

Lab Sample ID: 380-103303-Y-1 MSD
Matrix: Water
Analysis Batch: 99128

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	47		100	150		mg/L		103	80 - 120	1	20

Lab Sample ID: 380-103303-Y-1 DU
Matrix: Water
Analysis Batch: 99128

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	47		48.6		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	26		26.1		mg/L		0.7	20
Carbonate Alkalinity as CaCO3	21		22.5		mg/L		6	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-99131/2
Matrix: Water
Analysis Batch: 99131

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			07/12/24 12:15	1

Lab Sample ID: LCS 380-99131/4
Matrix: Water
Analysis Batch: 99131

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	1000		umhos/cm		100	90 - 110

Lab Sample ID: LCSD 380-99131/16
Matrix: Water
Analysis Batch: 99131

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	1	10

Lab Sample ID: MRL 380-99131/3
Matrix: Water
Analysis Batch: 99131

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

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

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

Lab Sample ID: 380-103303-Y-1 DU
Matrix: Water
Analysis Batch: 99131

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	310		319		umhos/cm		4	20

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

Lab Sample ID: MB 380-99254/1
Matrix: Water
Analysis Batch: 99254

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			07/16/24 14:59	1

Lab Sample ID: HLCS 380-99254/5
Matrix: Water
Analysis Batch: 99254

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	692		mg/L		99	80 - 114

Lab Sample ID: LCS 380-99254/4
Matrix: Water
Analysis Batch: 99254

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	178		mg/L		102	80 - 114

Lab Sample ID: MRL 380-99254/2
Matrix: Water
Analysis Batch: 99254

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	8.00	J	mg/L		80	50 - 150

Lab Sample ID: MRL 380-99254/3
Matrix: Water
Analysis Batch: 99254

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	7.00	J	mg/L		70	50 - 150

Lab Sample ID: 380-103673-1 DU
Matrix: Drinking Water
Analysis Batch: 99254

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	580		562		mg/L		3	10

QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-99127/40
Matrix: Water
Analysis Batch: 99127

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			07/12/24 16:48	1

Lab Sample ID: MB 380-99127/6
Matrix: Water
Analysis Batch: 99127

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			07/12/24 14:31	1

Lab Sample ID: LCS 380-99127/42
Matrix: Water
Analysis Batch: 99127

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	1.03		mg/L		103	90 - 110

Lab Sample ID: LCSD 380-99127/43
Matrix: Water
Analysis Batch: 99127

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	1.04		mg/L		104	90 - 110	1	10

Lab Sample ID: MRL 380-99127/41
Matrix: Water
Analysis Batch: 99127

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	0.0448	J	mg/L		90	50 - 150

Lab Sample ID: MRL 380-99127/7
Matrix: Water
Analysis Batch: 99127

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	0.0451	J	mg/L		90	50 - 150

Lab Sample ID: 380-102726-BN-1 MS
Matrix: Water
Analysis Batch: 99127

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	0.11		1.00	1.12		mg/L		101	80 - 120

Lab Sample ID: 380-102726-BN-1 MSD
Matrix: Water
Analysis Batch: 99127

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	0.11		1.00	1.09		mg/L		97	80 - 120	3	20

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QC Sample Results

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

Job ID: 380-103673-1
SDG: Quarterly

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-99133/4
Matrix: Water
Analysis Batch: 99133

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.5			SU			07/12/24 12:15	1

Lab Sample ID: LCS 380-99133/5
Matrix: Water
Analysis Batch: 99133

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 380-99133/17
Matrix: Water
Analysis Batch: 99133

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: 380-103303-Y-1 DU
Matrix: Water
Analysis Batch: 99133

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	9.4		9.5		SU		0.5	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MBL 380-98842/2
Matrix: Water
Analysis Batch: 98842

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			07/12/24 15:49	1

Lab Sample ID: LCS 380-98842/5
Matrix: Water
Analysis Batch: 98842

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	0.241		mg/L		96	90 - 110

Lab Sample ID: LCSD 380-98842/6
Matrix: Water
Analysis Batch: 98842

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	0.242		mg/L		97	90 - 110	0	20

QC Sample Results

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

Job ID: 380-103673-1
 SDG: Quarterly

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

Lab Sample ID: MRL 380-98842/3
Matrix: Water
Analysis Batch: 98842

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.0500	0.0454	J	mg/L		91	50 - 150

Lab Sample ID: 380-103673-1 MS
Matrix: Drinking Water
Analysis Batch: 98842

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<0.050	F1	0.250	0.156	F1	mg/L		63	80 - 120

Lab Sample ID: 380-103673-1 MSD
Matrix: Drinking Water
Analysis Batch: 98842

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.050	F1	0.250	0.169	F1	mg/L		67	80 - 120	8	20

QC Association Summary

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

Job ID: 380-103673-1
SDG: Quarterly

GC/MS VOA

Analysis Batch: 99042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 380-99042/8	Method Blank	Total/NA	Water	524.2	
LCS 380-99042/5	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-99042/6	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-99042/3	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-99042/4	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 99090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	524.2	
380-103673-2	TRAVEL BLANK	Total/NA	Water	524.2	
MB 380-99090/5	Method Blank	Total/NA	Water	524.2	
LCS 380-99090/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-99090/4	Lab Control Sample Dup	Total/NA	Water	524.2	

Analysis Batch: 99198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	524.2	
380-103673-2	TRAVEL BLANK	Total/NA	Water	524.2	
MB 380-99198/8	Method Blank	Total/NA	Water	524.2	
LCS 380-99198/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-99198/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-99198/5	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-99198/6	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 99378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	524.2	
380-103673-2	TRAVEL BLANK	Total/NA	Water	524.2	

Analysis Batch: 99491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	524.2	
380-103673-2	TRAVEL BLANK	Total/NA	Water	524.2	
MB 380-99491/5	Method Blank	Total/NA	Water	524.2	
LCS 380-99491/2	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-99491/3	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-99491/4	Lab Control Sample	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 99014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	
MB 380-99014/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-99014/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-99014/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-99014/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-103652-O-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-103673-1 DU	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	

QC Association Summary

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

Job ID: 380-103673-1
SDG: Quarterly

GC/MS Semi VOA

Analysis Batch: 99120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	99014
MB 380-99014/21-A	Method Blank	Total/NA	Water	525.2	99014
MRL 380-99014/22-A	Lab Control Sample	Total/NA	Water	525.2	99014
380-103652-O-1-A MS	Matrix Spike	Total/NA	Water	525.2	99014
380-103673-1 DU	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	99014

Analysis Batch: 99247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 380-99014/23-A	Lab Control Sample	Total/NA	Water	525.2	99014
LCSD 380-99014/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	99014

Prep Batch: 460222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-460222/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-460222/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 465376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-460222/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	460222
LCSD 570-460222/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	460222

Analysis Batch: 466731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	460222
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1	460222

Analysis Batch: 466820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1 SIM	460222
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1 SIM	460222

GC VOA

Analysis Batch: 460706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B GRO LL	
380-103673-2	TRAVEL BLANK	Total/NA	Water	8015B GRO LL	
MB 570-460706/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-460706/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-460706/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-460706/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-103360-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-103360-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 98731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	504.1	
MBL 380-98731/13-A	Method Blank	Total/NA	Water	504.1	

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QC Association Summary

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

Job ID: 380-103673-1
SDG: Quarterly

GC Semi VOA (Continued)

Prep Batch: 98731 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 380-98731/38-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-98731/11-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-98731/12-A	Lab Control Sample	Total/NA	Water	504.1	
380-102882-D-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-102882-B-2-A DU	Duplicate	Total/NA	Water	504.1	

Prep Batch: 99012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	505	
MB 380-99012/3-A	Method Blank	Total/NA	Water	505	
LCS 380-99012/31-A	Lab Control Sample	Total/NA	Water	505	
LCSD 380-99012/32-A	Lab Control Sample Dup	Total/NA	Water	505	
MRL 380-99012/1-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-99012/2-A	Lab Control Sample	Total/NA	Water	505	
380-102321-AN-1-A MS	Matrix Spike	Total/NA	Water	505	
380-102321-AP-1-A MS	Matrix Spike	Total/NA	Water	505	
380-102326-AL-1-A MS	Matrix Spike	Total/NA	Water	505	
380-102326-AR-1-A MS	Matrix Spike	Total/NA	Water	505	

Analysis Batch: 99024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	504.1	98731
MBL 380-98731/13-A	Method Blank	Total/NA	Water	504.1	98731
LCS 380-98731/38-A	Lab Control Sample	Total/NA	Water	504.1	98731
MRL 380-98731/11-A	Lab Control Sample	Total/NA	Water	504.1	98731
MRL 380-98731/12-A	Lab Control Sample	Total/NA	Water	504.1	98731
380-102882-D-1-A MS	Matrix Spike	Total/NA	Water	504.1	98731
380-102882-B-2-A DU	Duplicate	Total/NA	Water	504.1	98731

Prep Batch: 99699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-2	TRAVEL BLANK	Total/NA	Water	504.1	
MBL 380-99699/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-99699/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-99699/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-99699/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-103828-AP-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-104331-C-1-A DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 99738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	505	99012
MB 380-99012/3-A	Method Blank	Total/NA	Water	505	99012
LCS 380-99012/31-A	Lab Control Sample	Total/NA	Water	505	99012
LCSD 380-99012/32-A	Lab Control Sample Dup	Total/NA	Water	505	99012
MRL 380-99012/1-A	Lab Control Sample	Total/NA	Water	505	99012
MRL 380-99012/2-A	Lab Control Sample	Total/NA	Water	505	99012
380-102321-AN-1-A MS	Matrix Spike	Total/NA	Water	505	99012
380-102321-AP-1-A MS	Matrix Spike	Total/NA	Water	505	99012
380-102326-AL-1-A MS	Matrix Spike	Total/NA	Water	505	99012
380-102326-AR-1-A MS	Matrix Spike	Total/NA	Water	505	99012

QC Association Summary

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

Job ID: 380-103673-1
SDG: Quarterly

GC Semi VOA

Analysis Batch: 99859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-2	TRAVEL BLANK	Total/NA	Water	504.1	99699
MBL 380-99699/4-A	Method Blank	Total/NA	Water	504.1	99699
LCS 380-99699/29-A	Lab Control Sample	Total/NA	Water	504.1	99699
MRL 380-99699/2-A	Lab Control Sample	Total/NA	Water	504.1	99699
MRL 380-99699/3-A	Lab Control Sample	Total/NA	Water	504.1	99699
380-103828-AP-1-A MS	Matrix Spike	Total/NA	Water	504.1	99699
380-104331-C-1-A DU	Duplicate	Total/NA	Water	504.1	99699

Analysis Batch: 460498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B	
MB 570-460498/3	Method Blank	Total/NA	Water	8015B	
LCS 570-460498/4	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-460498/5	Lab Control Sample Dup	Total/NA	Water	8015B	
MRL 570-460498/6	Lab Control Sample	Total/NA	Water	8015B	
380-103361-AI-1 MS	Matrix Spike	Total/NA	Water	8015B	
380-103361-AI-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	

Prep Batch: 460900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	3510C	
MB 570-460900/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-460900/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-460900/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-460900/4-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 462205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B	460900
MB 570-460900/1-A	Method Blank	Total/NA	Water	8015B	460900
LCS 570-460900/2-A	Lab Control Sample	Total/NA	Water	8015B	460900
LCSD 570-460900/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	460900
MRL 570-460900/4-A	Lab Control Sample	Total/NA	Water	8015B	460900

HPLC/IC

Analysis Batch: 98689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	300.0	
MB 380-98689/41	Method Blank	Total/NA	Water	300.0	
LCS 380-98689/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-98689/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-98689/42	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-98689/43	Lab Control Sample	Total/NA	Water	300.0	
380-103542-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-103542-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
380-103655-E-2 MS	Matrix Spike	Total/NA	Water	300.0	
380-103655-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

QC Association Summary

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

Job ID: 380-103673-1
 SDG: Quarterly

HPLC/IC

Analysis Batch: 98690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	300.0	
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	300.0	
MB 380-98690/41	Method Blank	Total/NA	Water	300.0	
LCS 380-98690/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-98690/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-98690/42	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-98690/43	Lab Control Sample	Total/NA	Water	300.0	
380-103542-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-103542-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
380-103655-E-2 MS	Matrix Spike	Total/NA	Water	300.0	
380-103655-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 99468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 380-99468/5	Method Blank	Total/NA	Water	300.0	
LCS 380-99468/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-99468/7	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-99468/4	Lab Control Sample	Total/NA	Water	300.0	
380-103973-BR-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-103973-BR-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 99559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	300.0	
MB 380-99559/8	Method Blank	Total/NA	Water	300.0	
LCS 380-99559/9	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-99559/10	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-99559/11	Lab Control Sample	Total/NA	Water	300.0	
380-103836-C-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-103836-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Analysis Batch: 98998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	200.8	
MBL 380-98998/94	Method Blank	Total/NA	Water	200.8	
LCS 380-98998/96	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-98998/97	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-98998/95	Lab Control Sample	Total/NA	Water	200.8	
380-103673-1 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	200.8	
380-103673-1 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	200.8	

Analysis Batch: 99245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	200.7 Rev 4.4	
MB 380-99245/156	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-99245/160	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-99245/161	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-99245/159	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-103666-A-5 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	

QC Association Summary

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

Job ID: 380-103673-1
SDG: Quarterly

Metals (Continued)

Analysis Batch: 99245 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103666-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Prep Batch: 105810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	245.1	
MB 810-105810/1-A	Method Blank	Total/NA	Water	245.1	
LCS 810-105810/3-A	Lab Control Sample	Total/NA	Water	245.1	
LLCS 810-105810/2-A	Lab Control Sample	Total/NA	Water	245.1	
810-109988-A-4-B MS	Matrix Spike	Total/NA	Water	245.1	
810-109988-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 105848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	245.1	105810
MB 810-105810/1-A	Method Blank	Total/NA	Water	245.1	105810
LCS 810-105810/3-A	Lab Control Sample	Total/NA	Water	245.1	105810
LLCS 810-105810/2-A	Lab Control Sample	Total/NA	Water	245.1	105810
810-109988-A-4-B MS	Matrix Spike	Total/NA	Water	245.1	105810
810-109988-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	105810

General Chemistry

Analysis Batch: 98842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 4500 S2 D	
MBL 380-98842/2	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-98842/5	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-98842/6	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-98842/3	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-103673-1 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 4500 S2 D	
380-103673-1 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 4500 S2 D	

Analysis Batch: 99127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 4500 F C	
MB 380-99127/40	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-99127/6	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-99127/42	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-99127/43	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-99127/41	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-99127/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-102726-BN-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-102726-BN-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 99128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 2320B	
MB 380-99128/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-99128/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-99128/18	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-99128/4	Lab Control Sample	Total/NA	Water	SM 2320B	

QC Association Summary

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

Job ID: 380-103673-1
 SDG: Quarterly

General Chemistry (Continued)

Analysis Batch: 99128 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-99128/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-103303-Y-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-103303-Y-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-103303-Y-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 99131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 2510B	
MB 380-99131/2	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-99131/4	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-99131/16	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-99131/3	Lab Control Sample	Total/NA	Water	SM 2510B	
380-103303-Y-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 99133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-99133/4	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-99133/5	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-99133/17	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-103303-Y-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 99254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 2540C	
MB 380-99254/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-99254/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-99254/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-99254/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-99254/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-103673-1 DU	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	SM 2540C	

Lab Chronicle

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

Job ID: 380-103673-1
SDG: Quarterly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-103673-1

Date Collected: 07/10/24 10:14

Matrix: Drinking Water

Date Received: 07/11/24 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	99198	Q6AD	EA POM	07/16/24 18:41
Total/NA	Analysis	524.2		1	99491	P3EE	EA POM	07/17/24 17:49
Total/NA	Analysis	524.2		1	99090	P3EE	EA POM	07/16/24 09:01
Total/NA	Analysis	524.2		1	99378	YXX2	EA POM	07/16/24 09:01
Total/NA	Prep	525.2			99014	OTM3	EA POM	07/15/24 11:00
Total/NA	Analysis	525.2		1	99120	Q8LA	EA POM	07/16/24 12:48
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1		1	466731	CG	EET CAL 4	08/02/24 20:04
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1 SIM		1	466820	PQS1	EET CAL 4	08/02/24 13:02
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/17/24 00:02
Total/NA	Prep	504.1			98731	LZ8Q	EA POM	07/12/24 11:30 - 07/12/24 13:00 ¹
Total/NA	Analysis	504.1		1	99024	LZ8Q	EA POM	07/13/24 00:40
Total/NA	Prep	505			99012	K9GY	EA POM	07/16/24 14:20 - 07/16/24 16:00 ¹
Total/NA	Analysis	505		1	99738	ULRL	EA POM	07/16/24 21:31
Total/NA	Prep	3510C			460900	H6FE	EET CAL 4	07/16/24 16:05
Total/NA	Analysis	8015B		1	462205	SP9M	EET CAL 4	07/20/24 14:34
Total/NA	Analysis	8015B		1	460498	ZE2W	EET CAL 4	07/15/24 20:19
Total/NA	Analysis	300.0		2	98689	XLG4	EA POM	07/12/24 08:38
Total/NA	Analysis	300.0		2	98690	XLG4	EA POM	07/12/24 08:38
Total/NA	Analysis	300.0		10	98690	XLG4	EA POM	07/12/24 08:54
Total/NA	Analysis	300.0		5	99559	UNJR	EA POM	07/18/24 03:51
Total/NA	Analysis	200.7 Rev 4.4		1	99245	T8RV	EA POM	07/15/24 23:33
Total/NA	Analysis	200.8		1	98998	VB9B	EA POM	07/12/24 18:43
Total/NA	Prep	245.1			105810	AC	EA SB	07/15/24 12:54
Total/NA	Analysis	245.1		1	105848	AC	EA SB	07/15/24 17:55
Total/NA	Analysis	SM 2320B		1	99128	GP4S	EA POM	07/12/24 14:29
Total/NA	Analysis	SM 2510B		1	99131	GP4S	EA POM	07/12/24 14:29
Total/NA	Analysis	SM 2540C		1	99254	UJRF	EA POM	07/16/24 14:59
Total/NA	Analysis	SM 4500 F C		1	99127	GP4S	EA POM	07/12/24 18:18
Total/NA	Analysis	SM 4500 H+ B		1	99133	GP4S	EA POM	07/12/24 14:29
Total/NA	Analysis	SM 4500 S2 D		1	98842	MQP5	EA POM	07/12/24 15:49

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Date Collected: 07/10/24 10:14

Matrix: Water

Date Received: 07/11/24 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	99198	Q6AD	EA POM	07/16/24 19:03
Total/NA	Analysis	524.2		1	99491	P3EE	EA POM	07/17/24 18:12
Total/NA	Analysis	524.2		1	99090	P3EE	EA POM	07/16/24 09:24
Total/NA	Analysis	524.2		1	99378	YXX2	EA POM	07/16/24 09:24

Eurofins Eaton Analytical Pomona

Lab Chronicle

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

Job ID: 380-103673-1
 SDG: Quarterly

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-103673-2

Date Collected: 07/10/24 10:14

Matrix: Water

Date Received: 07/11/24 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/16/24 22:44
Total/NA	Prep	504.1			99699	LZ8Q	EA POM	07/18/24 15:00 - 07/18/24 16:00 ¹
Total/NA	Analysis	504.1		1	99859	LZ8Q	EA POM	07/19/24 05:01

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: 380-103673-1
 SDG: Quarterly

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

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

Analysis Method	Prep Method	Matrix	Analyte
505	505	Drinking Water	Polychlorinated biphenyls, Total
524.2		Drinking Water	1,3-Dichloropropene, Total
524.2		Drinking Water	2-Butanone (MEK)
524.2		Drinking Water	Acetone
524.2		Drinking Water	Bromodichloromethane
524.2		Drinking Water	Bromoethane
524.2		Drinking Water	Bromoform
524.2		Drinking Water	Chlorodibromomethane
524.2		Drinking Water	Chloroform (Trichloromethane)
524.2		Drinking Water	m,p Xylenes
524.2		Drinking Water	o-Xylene
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	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4'-DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde

Accreditation/Certification Summary

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

Job ID: 380-103673-1
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
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
SM 2320B		Drinking Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Drinking Water	Carbonate Alkalinity as CaCO3
SM 4500 S2 D		Drinking Water	Sulfide

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
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	07-21-24
Alabama	State	40700	06-30-25
Alaska	State	IN00035	06-30-25
Arizona	State	AZ0432	07-25-24
Arkansas (DW)	State	EPA IN00035	06-30-25
California	State	2920	06-30-24 *
Colorado	State	IN00035	02-28-25
Connecticut	State	PH-0132	03-31-26
Delaware (DW)	State	IN00035	06-30-25
Florida	NELAP	E87775	06-30-25
Georgia (DW)	State	929	06-30-24 *
Guam	State	23-011R	07-15-24
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

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

Accreditation/Certification Summary

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

Job ID: 380-103673-1
 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
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	07-16-24
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-25
Massachusetts	State	M-IN035	07-30-24
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	07-16-24
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	07-31-24
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	07-21-24
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	07-16-24
Virginia	NELAP	460275	03-14-25
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: 380-103673-1
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
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	EA POM
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA POM
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET CAL 4
300.0	Anions, Ion Chromatography	EPA	EA POM
200.7 Rev 4.4	Metals (ICP)	EPA	EA POM
200.8	Metals (ICP/MS)	EPA	EA POM
245.1	Mercury (CVAA)	EPA	EA SB
SM 2320B	Alkalinity	SM	EA POM
SM 2510B	Conductivity, Specific Conductance	SM	EA POM
SM 2540C	Solids, Total Dissolved (TDS)	SM	EA POM
SM 4500 F C	Fluoride	SM	EA POM
SM 4500 H+ B	pH	SM	EA POM
SM 4500 S2 D	Sulfide, Total	SM	EA POM
245.1	Preparation, Mercury	EPA	EA SB
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
504.1	Microextraction	EPA-DW	EA POM
505	Extraction, Organochlorine Pesticides/PCBs	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
None	Autocomplete Prep - Metals - No Digestion required	None	EA POM

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

EPA-DW2 = "Methods For The Determination of Organic Compounds in Drinking Water - Supplement III ", EPA/600/R-95-131, August 1995

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

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

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

Sample Summary

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

Job ID: 380-103673-1
SDG: Quarterly


<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-103673-1	HALAWA WELLS UNITS 1 & 2 P1	Drinking Water	07/10/24 10:14	07/11/24 10:35
380-103673-2	TRAVEL BLANK	Water	07/10/24 10:14	07/11/24 10:35

- 1
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- 11
- 12
- 13
- 14
- 15
- 16

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

Chain of Custody Record

eurofins

Client Information Client Contact: Dr Ron Fenstermacher Company: City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State Zip: HI 96843 Phone: 808-748-5091 (tel) Email: rfenstermacher@hbws.org Project Name: RED-HILL Site:		Lab P/N: Arada Rachelle E-Mail: Rachelle.Arada@eurofins.com Camer Tracking No(s): 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 525 2_PRES_PREC 524 2_SIM_PREC 525 2_PREC 525plus PLUS TICs 4500 F C 300_OF_280_B 300_OF_280_PREC 300_OF_48H_PREC 246 1 Local Method 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 NH4SO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:	
Matrix: Water Sample Type: (C=Comp, G=Grab) Sample Time: 014 G Sample Date: 10 Jul 2024 10-Jul-2024 10 4  380-103673 COC		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 504 1_PREC 505_LL_PREC 2320B 2510B SM4500_H+ 2007 2008 2540C Calcd Total dissolved Solids (TDS) SM4500_52_0 Sulfide Total 524 2_Pres_Prec 524 2_Sim_Prec 525 2_Prec 525plus PLUS TICs 4500 F C 300_OF_280_B 300_OF_280_PREC 300_OF_48H_PREC 246 1 Local Method 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		Special Instructions/Note Total Number of Containers: 4 2 100% OF 6 APPOINTED SAMPLES NOT OF 7/11/2024	
Halawa Wells Units 1 & 2 P1 Travel Blank					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)					
Empty Kit Relinquished by: [Redacted] Relinquished Date/Time: 08/20/24 400 Relinquished by: G. PETER Date/Time: 07/11/2024 10:35 Relinquished by: [Redacted] Date/Time:					
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/QC Requirements:					
Method of Shipment: FED EX Date/Time: 07/11/2024 10:35 Company: EEAF					
Cooler Temperature(s) °C and Other Remarks: (75°F) (22.5° - 0.1° = 2.4°) (2) 2.6° - 0.1° = 2.5° 6EL FROZEN					



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

Chain of Custody Record

eurofins

Client Information Client Contact: Dr Ron Fenstermacher Company: City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State, Zip: HI 96843 Phone: 808-748-5091 (tel) Email: rfenstermacher@hbws.org Project Name: RED-HILL Site:		Lab PM: Arada Rachelle E-mail: Rachelle.Arada@eurofins.com State of Origin:		Carrier Tracking No(s): Page: Page 2 of 2 Job #:		COC No:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> No PO #: C20525101 exp 05312023 WO #:		Analysis Requested:		Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:		M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Y Thzma Z other (specify)	
Sample Identification: Halawa Wells Units 1 & 2 P1 Travel Blank		Perform MS/MSD (Yes or No): Field Filtered Sample (Yes or No): 504 PREC Local Method		Total Number of containers:		Special Instructions/Note:	
Sample Date: 10-Jul-2024 Sample Time: 1014 Matrix: Water		Sample Type (C=Comp, G=grab): G Preservation Code:		8015B_DAL Ethanol 8015B_DRO_LL_CS HNL Ranges C10-C24/C24-C36/C8-C18 504 PREC Local Method		2 2 3	
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/QC Requirements:	
Empty Kit Relinquished by:		Date:		Method of Shipment: FED EX 3773 2528 3254 3773 2528 3243		Date/Time Received by: 07/11/2024 10:35 Company: EEAR	
Relinquished by: Davey		Date/Time: 10/14/2024 10:14		Relinquished by: G. REMNER		Date/Time: 07/11/2024 10:35 Company: EEAR	
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature(s) °C and Other Remarks: (F51A) 2.5°-0.1°=2.4° / 2.6°-0.1°=2.5° GEU-F002EN		Ver: 01/16/2019	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-103673-1

SDG Number: Quarterly

Login Number: 103673

List Number: 1

Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	One 524 vial recd. broken.
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-103673-1

SDG Number: Quarterly

Login Number: 103673

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 07/12/24 06:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
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: 380-103673-1

SDG Number: Quarterly

Login Number: 103673

List Number: 3

Creator: Moore, Gary

List Source: Eurofins Eaton Analytical South Bend

List Creation: 07/13/24 11:16 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

