

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-90697-1

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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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	7
Client Sample Results	8
Action Limit Summary	16
Surrogate Summary	19
QC Sample Results	22
QC Association Summary	65
Lab Chronicle	71
Certification Summary	72
Method Summary	76
Sample Summary	77
Chain of Custody	78
Receipt Checklists	84

Definitions/Glossary

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

Job ID: 380-90697-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS 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, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
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.
E	Result exceeded calibration range.
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.

Metals

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

General Chemistry

Qualifier	Qualifier Description
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)
EDL	Estimated Detection Limit (Dioxin)

Definitions/Glossary

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

Job ID: 380-90697-1

Glossary (Continued)

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

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: 380-90697-1

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Job Narrative 380-90697-1

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

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 4/10/2024 10:17 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 3.9°C.

GC/MS VOA

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

GC/MS Semi VOA

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.

HPLC/IC

Method 300_OF_28D_B: Due to the high concentration of Bromide, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 380-85757 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300_OF_48H_PREC: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 380-85306 were outside control limits for one analyte. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS/LCSD) recovery is within acceptance limits.

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

Metals

Method 200.8: The continuing calibration blank (CCB) for analytical batch 380-85716 contained Silver above the reporting limit (RL). All reported samples associated with this CCB were ND for this analyte; therefore, re-analysis of samples was not performed.

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

General Chemistry

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

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Detection Summary

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	360		5.0	ug/L	1		300.0	Total/NA
Chloride	99		2.5	mg/L	5		300.0	Total/NA
Nitrate as N	0.85		0.050	mg/L	1		300.0	Total/NA
Sulfate	16		0.25	mg/L	1		300.0	Total/NA
Calcium	18		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	17		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.4		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	37		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.2		1.0	ug/L	1		200.8	Total/NA
Zinc	20		20	ug/L	1		200.8	Total/NA
Alkalinity	57		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	57		2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	480		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	300		20	mg/L	1		SM 2540C	Total/NA
Fluoride	0.056		0.050	mg/L	1		SM 4500 F C	Total/NA
pH	7.9	HF		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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			04/15/24 07:55	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			04/11/24 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		04/11/24 18:13	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/11/24 18:13	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		04/11/24 18:13	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			04/15/24 07:55	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/15/24 07:55	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/15/24 07:55	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 07:55	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/15/24 07:55	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/15/24 07:55	1
Acetone	<500 *1		500	ug/L			04/15/24 07:55	1
Benzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Bromobenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Bromochloromethane	<0.50 *1		0.50	ug/L			04/15/24 07:55	1
Bromodichloromethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Bromoethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Bromoform	<0.50		0.50	ug/L			04/15/24 07:55	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/15/24 07:55	1
Carbon disulfide	<0.50		0.50	ug/L			04/15/24 07:55	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/15/24 07:55	1
Chlorobenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Chloroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/15/24 07:55	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/15/24 07:55	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 07:55	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 07:55	1
Dibromomethane	<0.50		0.50	ug/L			04/15/24 07:55	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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			04/15/24 07:55	1
Dichloromethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Diisopropyl ether	<3.0		3.0	ug/L			04/15/24 07:55	1
Ethylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Hexachlorobutadiene	<0.50		0.50	ug/L			04/15/24 07:55	1
Isopropylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
m,p-Xylenes	<0.50		0.50	ug/L			04/15/24 07:55	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/15/24 07:55	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/15/24 07:55	1
Naphthalene	<0.50		0.50	ug/L			04/15/24 07:55	1
n-Butylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
N-Propylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 07:55	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/15/24 07:55	1
o-Xylene	<0.50		0.50	ug/L			04/15/24 07:55	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 07:55	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/15/24 07:55	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/15/24 07:55	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Styrene	<0.50		0.50	ug/L			04/15/24 07:55	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/15/24 07:55	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/15/24 07:55	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/15/24 07:55	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/15/24 07:55	1
Toluene	<0.50		0.50	ug/L			04/15/24 07:55	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 07:55	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 07:55	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/15/24 07:55	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/15/24 07:55	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/15/24 07:55	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/15/24 07:55	1
Xylenes, Total	<0.50		0.50	ug/L			04/15/24 07:55	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Acetamide, 2,2,2-trichloro-	4.5	T J N	ug/L		1.80	594-65-0		04/15/24 07:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		04/15/24 07:55	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/15/24 07:55	1
Toluene-d8 (Surr)	96		70 - 130		04/15/24 07:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
2,4'-DDE	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
2,4'-DDT	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
2,4-Dinitrotoluene	<0.097	*+ ^+	0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
4,4'-DDD	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
4,4'-DDE	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	<0.097	^3+	0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Acenaphthene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Acenaphthylene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Acetochlor	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Alachlor	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
alpha-BHC	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
alpha-Chlordane	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Anthracene	<0.019	F1	0.019	ug/L		04/11/24 11:48	04/12/24 12:59	1
Atrazine	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Benzo[a]pyrene	<0.019		0.019	ug/L		04/11/24 11:48	04/12/24 12:59	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		04/11/24 11:48	04/12/24 12:59	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		04/11/24 11:48	04/12/24 12:59	1
beta-BHC	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		04/11/24 11:48	04/12/24 12:59	1
Bromacil	<0.097	F1 *+ ^+	0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Butachlor	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/11/24 11:48	04/12/24 12:59	1
Chlorobenzilate	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Chloroneb	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Chlorpyrifos	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Chrysene	<0.019	^3+	0.019	ug/L		04/11/24 11:48	04/12/24 12:59	1
delta-BHC	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		04/11/24 11:48	04/12/24 12:59	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Dieldrin	<0.19		0.19	ug/L		04/11/24 11:48	04/12/24 12:59	1
Diethylphthalate	<0.49		0.49	ug/L		04/11/24 11:48	04/12/24 12:59	1
Dimethylphthalate	<0.49		0.49	ug/L		04/11/24 11:48	04/12/24 12:59	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		04/11/24 11:48	04/12/24 12:59	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Endosulfan sulfate	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Endrin	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Endrin aldehyde	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
EPTC	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Fluoranthene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Fluorene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
gamma-BHC (Lindane)	<0.039		0.039	ug/L		04/11/24 11:48	04/12/24 12:59	1
gamma-Chlordane	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Heptachlor	<0.039		0.039	ug/L		04/11/24 11:48	04/12/24 12:59	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Hexachlorobenzene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Isophorone	<0.49		0.49	ug/L		04/11/24 11:48	04/12/24 12:59	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Malathion	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Methoxychlor	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Metolachlor	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Molinate	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Naphthalene	<0.29		0.29	ug/L		04/11/24 11:48	04/12/24 12:59	1
Parathion	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Phenanthrene	<0.039		0.039	ug/L		04/11/24 11:48	04/12/24 12:59	1
Propachlor	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Pyrene	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Simazine	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Terbacil	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Terbutylazine	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
Thiobencarb	<0.19		0.19	ug/L		04/11/24 11:48	04/12/24 12:59	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		04/11/24 11:48	04/12/24 12:59	1
trans-Nonachlor	<0.049		0.049	ug/L		04/11/24 11:48	04/12/24 12:59	1
Trifluralin	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
1-Methylnaphthalene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1
2-Methylnaphthalene	<0.097		0.097	ug/L		04/11/24 11:48	04/12/24 12:59	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	04/11/24 11:48	04/12/24 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	04/11/24 11:48	04/12/24 12:59	1
Perylene-d12	97		70 - 130	04/11/24 11:48	04/12/24 12:59	1
Triphenylphosphate	102		70 - 130	04/11/24 11:48	04/12/24 12:59	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		04/11/24 16:00	04/12/24 08:31	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		04/11/24 16:00	04/12/24 08:31	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/11/24 16:00	04/12/24 08:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	108		60 - 140	04/11/24 16:00	04/12/24 08:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
Dieldrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
Toxaphene	<0.50		0.50	ug/L		04/12/24 13:40	04/13/24 06:23	1
Alachlor	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
Endrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
Heptachlor	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
Heptachlor epoxide	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
gamma-BHC (Lindane)	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 06:23	1
Methoxychlor	<0.050		0.050	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1016	<0.070		0.070	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1221	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1242	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1248	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1254	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1
PCB-1260	<0.070		0.070	ug/L		04/12/24 13:40	04/13/24 06:23	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 06:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	110		70 - 130	04/12/24 13:40	04/13/24 06:23	1
Tetrachloro-m-xylene	108		70 - 130	04/12/24 13:40	04/13/24 06:23	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	360		5.0	ug/L			04/13/24 01:24	1
Chloride	99		2.5	mg/L			04/11/24 20:02	5
Nitrate as N	0.85		0.050	mg/L			04/10/24 17:28	1
Nitrite as N	<0.050	F1	0.050	mg/L			04/10/24 17:28	1
Sulfate	16		0.25	mg/L			04/10/24 17:28	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18		1.0	mg/L			04/11/24 18:40	1
Magnesium	17		0.10	mg/L			04/11/24 18:40	1
Potassium	2.4		1.0	mg/L			04/11/24 18:40	1
Sodium	37		1.0	mg/L			04/11/24 18:40	1

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	ug/L			04/12/24 00:12	1
Arsenic	<1.0		1.0	ug/L			04/12/24 00:12	1
Beryllium	<1.0		1.0	ug/L			04/12/24 00:12	1
Cadmium	<0.50		0.50	ug/L			04/12/24 00:12	1
Chromium	2.2		1.0	ug/L			04/12/24 00:12	1
Copper	<2.0		2.0	ug/L			04/12/24 00:12	1
Lead	<0.50		0.50	ug/L			04/12/24 00:12	1
Nickel	<5.0		5.0	ug/L			04/12/24 00:12	1
Selenium	<5.0		5.0	ug/L			04/12/24 00:12	1
Silver	<0.50		0.50	ug/L			04/12/24 00:12	1
Thallium	<1.0		1.0	ug/L			04/12/24 00:12	1
Zinc	20		20	ug/L			04/12/24 00:12	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		04/16/24 11:07	04/16/24 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	57		2.0	mg/L			04/12/24 15:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	57		2.0	mg/L			04/12/24 15:33	1

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.0		2.0	mg/L			04/12/24 15:33	1
Specific Conductance (SM 2510B)	480		2.0	umhos/cm			04/12/24 15:33	1
Total Dissolved Solids (SM 2540C)	300		20	mg/L			04/10/24 18:24	1
Fluoride (SM 4500 F C)	0.056		0.050	mg/L			04/12/24 15:56	1
pH (SM 4500 H+ B)	7.9	HF		SU			04/12/24 15:33	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			04/11/24 09:33	1

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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			04/15/24 08:17	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			04/11/24 18:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	99		70 - 130				04/11/24 18:36	1
<i>4-Bromofluorobenzene (Surr)</i>	99		70 - 130				04/11/24 18:36	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		70 - 130				04/11/24 18:36	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			04/15/24 08:17	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 08:17	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/15/24 08:17	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 08:17	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/15/24 08:17	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/15/24 08:17	1
Acetone	<500	*1	500	ug/L			04/15/24 08:17	1
Benzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Bromobenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Bromochloromethane	<0.50	*1	0.50	ug/L			04/15/24 08:17	1
Bromodichloromethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Bromoform	<0.50		0.50	ug/L			04/15/24 08:17	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/15/24 08:17	1
Carbon disulfide	<0.50		0.50	ug/L			04/15/24 08:17	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/15/24 08:17	1
Chlorobenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Chloroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/15/24 08:17	1
Dichloromethane	<0.50		0.50	ug/L			04/15/24 08:17	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 08:17	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 08:17	1
Dibromomethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Ethylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Hexachlorobutadiene	<0.50		0.50	ug/L			04/15/24 08:17	1
Isopropylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
m,p-Xylenes	<0.50		0.50	ug/L			04/15/24 08:17	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/15/24 08:17	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/15/24 08:17	1
Naphthalene	<0.50		0.50	ug/L			04/15/24 08:17	1
n-Butylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
N-Propylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/15/24 08:17	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 08:17	1
o-Xylene	<0.50		0.50	ug/L			04/15/24 08:17	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 08:17	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/15/24 08:17	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/15/24 08:17	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Styrene	<0.50		0.50	ug/L			04/15/24 08:17	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/15/24 08:17	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/15/24 08:17	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/15/24 08:17	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/15/24 08:17	1
Toluene	<0.50		0.50	ug/L			04/15/24 08:17	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/15/24 08:17	1
Xylenes, Total	<0.50		0.50	ug/L			04/15/24 08:17	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 08:17	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 08:17	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/15/24 08:17	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/15/24 08:17	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/15/24 08:17	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Bromoethane	<0.50		0.50	ug/L			04/15/24 08:17	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/15/24 08:17	1
Diisopropyl ether	<3.0		3.0	ug/L			04/15/24 08:17	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Acetaldehyde	4.7	T J N	ug/L		1.65	75-07-0		04/15/24 08:17	1
Phenethylamine, p., alpha.-dimethyl-	5.2	T J N	ug/L		1.78	64-11-9		04/15/24 08:17	1
Furfural	3.0	T J N	ug/L		10.17	98-01-1		04/15/24 08:17	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-90697-1

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		04/15/24 08:17	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/15/24 08:17	1
Toluene-d8 (Surr)	96		70 - 130		04/15/24 08:17	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		04/13/24 14:00	04/14/24 04:39	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		04/13/24 14:00	04/14/24 04:39	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/13/24 14:00	04/14/24 04:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	93		60 - 140	04/13/24 14:00	04/14/24 04:39	1

Action Limit Summary

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

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	<0.049		ug/L		2		525.2	Total/NA
Atrazine	<0.049		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	<0.097		ug/L		2		525.2	Total/NA
gamma-BHC (Lindane)	<0.039		ug/L		0.2		525.2	Total/NA
Heptachlor	<0.039		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L		50		525.2	Total/NA
Methoxychlor	<0.097		ug/L		40		525.2	Total/NA
Simazine	<0.049		ug/L		4		525.2	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.50		ug/L		3		505	Total/NA
Alachlor	<0.10		ug/L		2		505	Total/NA
Chlordane (n.o.s.)	<0.10		ug/L		2		505	Total/NA
Endrin	<0.010		ug/L		2		505	Total/NA
Heptachlor	<0.010		ug/L		0.4		505	Total/NA
Heptachlor epoxide	<0.010		ug/L		0.2		505	Total/NA
gamma-BHC (Lindane)	<0.010		ug/L		0.2		505	Total/NA
Methoxychlor	<0.050		ug/L		40		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260) (Continued)

Lab Sample ID: 380-90697-1

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	Method	Prep Type
						S		
Chloride	99		mg/L			250	300.0	Total/NA
Nitrate as N	0.85		mg/L		10		300.0	Total/NA
Nitrite as N	<0.050	F1	mg/L		1		300.0	Total/NA
Sulfate	16		mg/L			250	300.0	Total/NA
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
Beryllium	<1.0		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	2.2		ug/L		100		200.8	Total/NA
Copper	<2.0		ug/L			1300	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		ug/L			100	200.8	Total/NA
Thallium	<1.0		ug/L		2		200.8	Total/NA
Zinc	20		ug/L			5000	200.8	Total/NA
Mercury	<0.10		ug/L		2		245.1	Total/NA
Total Dissolved Solids	300		mg/L			500	SM 2540C	Total/NA
Fluoride	0.056		mg/L		4	2	SM 4500 F C	Total/NA

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-90697-1

Client Sample ID: TB: AIEA WELLS P2 (260) (Continued)

Lab Sample ID: 380-90697-2

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
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
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: 380-90697-1

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)
380-90697-1	AIEA WELLS P2 (260)	99	99	101
380-90697-2	TB: AIEA WELLS P2 (260)	99	99	101
LCS 380-85520/19	Lab Control Sample	100	100	99
LCSD 380-85520/20	Lab Control Sample Dup	100	99	101
MB 380-85520/22	Method Blank	100	100	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 (50-150)	BFB (50-150)	DCA (50-150)
MRL 380-85520/21	Lab Control Sample	100	98	101

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
380-90697-1	AIEA WELLS P2 (260)	104	100	96
380-90697-2	TB: AIEA WELLS P2 (260)	101	101	96
LCS 380-85829/5	Lab Control Sample	103	100	100
LCS 380-85832/3	Lab Control Sample	100	99	98
LCSD 380-85829/6	Lab Control Sample Dup	100	98	99
LCSD 380-85832/4	Lab Control Sample Dup	98	103	98
MB 380-85829/8	Method Blank	103	101	99
MB 380-85832/5	Method Blank	100	100	98
MRL 380-85829/3	Lab Control Sample	105	98	97
MRL 380-85829/4	Lab Control Sample	104	100	98

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: 380-90697-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-90697-1	AIEA WELLS P2 (260)	101	97	102
380-90697-1 MS	AIEA WELLS P2 (260)	100	98	101
380-90697-1 MSD	AIEA WELLS P2 (260)	99	98	111
LCS 380-85424/23-A	Lab Control Sample	99	98	105
LCSD 380-85424/24-A	Lab Control Sample Dup	96	93	101
MB 380-85424/21-A	Method Blank	100	99	105
MRL 380-85424/22-A	Lab Control Sample	97	95	102

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DBPP1 (60-140)
380-90697-1	AIEA WELLS P2 (260)	108
380-90697-2	TB: AIEA WELLS P2 (260)	93
380-90796-BQ-1-B MS	Matrix Spike	101
380-90796-BQ-1-C DU	Duplicate	99
380-90805-BU-1-B MS	Matrix Spike	98
380-90805-BU-1-C DU	Duplicate	104
LCS 380-85451/29-A	Lab Control Sample	106
LCS 380-85697/29-A	Lab Control Sample	100
MBL 380-85451/4-A	Method Blank	102
MBL 380-85697/4-A	Method Blank	98
MRL 380-85451/2-A	Lab Control Sample	101
MRL 380-85451/3-A	Lab Control Sample	102
MRL 380-85697/2-A	Lab Control Sample	102
MRL 380-85697/3-A	Lab Control Sample	99

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (70-130)	TCX2 (70-130)
380-90697-1	AIEA WELLS P2 (260)	110	108
380-90963-F-1-A MS	Matrix Spike	102	101
380-90963-G-1-A MS	Matrix Spike	107	
380-90805-BR-1-A MS	Matrix Spike	107	105
380-90805-BS-1-A MS	Matrix Spike	126	
MB 380-85586/3-A	Method Blank	104	102
MRL 380-85586/1-A	Lab Control Sample	110	105
MRL 380-85586/2-A	Lab Control Sample	105	

Surrogate Summary

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

Job ID: 380-90697-1

Surrogate Legend

TCX = Tetrachloro-m-xylene

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

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85829/8
Matrix: Water
Analysis Batch: 85829

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			04/14/24 15:15	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,1-Dichlorethylene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/14/24 15:15	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/14/24 15:15	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/14/24 15:15	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/14/24 15:15	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/14/24 15:15	1
Acetone	<500		500	ug/L			04/14/24 15:15	1
Benzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromobenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromochloromethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromodichloromethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromoform	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/14/24 15:15	1
Carbon disulfide	<0.50		0.50	ug/L			04/14/24 15:15	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/14/24 15:15	1
Chlorobenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Chloroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/14/24 15:15	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/14/24 15:15	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/14/24 15:15	1
Dibromomethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Dichloromethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Ethylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Hexachlorobutadiene	<0.50		0.50	ug/L			04/14/24 15:15	1
Isopropylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
m,p-Xylenes	<0.50		0.50	ug/L			04/14/24 15:15	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/14/24 15:15	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/14/24 15:15	1
Naphthalene	<0.50		0.50	ug/L			04/14/24 15:15	1
n-Butylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
N-Propylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/14/24 15:15	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/14/24 15:15	1
o-Xylene	<0.50		0.50	ug/L			04/14/24 15:15	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85829/8
Matrix: Water
Analysis Batch: 85829

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			04/14/24 15:15	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/14/24 15:15	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/14/24 15:15	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Styrene	<0.50		0.50	ug/L			04/14/24 15:15	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/14/24 15:15	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/14/24 15:15	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/14/24 15:15	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/14/24 15:15	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/14/24 15:15	1
Toluene	<0.50		0.50	ug/L			04/14/24 15:15	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/14/24 15:15	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/14/24 15:15	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/14/24 15:15	1
Bromoethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/14/24 15:15	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/14/24 15:15	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/14/24 15:15	1
Diisopropyl ether	<3.0		3.0	ug/L			04/14/24 15:15	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/14/24 15:15	1
Xylenes, Total	<0.50		0.50	ug/L			04/14/24 15:15	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		04/14/24 15:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		04/14/24 15:15	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/14/24 15:15	1
Toluene-d8 (Surr)	99		70 - 130		04/14/24 15:15	1

Lab Sample ID: LCS 380-85829/5
Matrix: Water
Analysis Batch: 85829

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	4.44		ug/L		89	70 - 130
1,1,1-Trichloroethane	5.00	4.55		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.66		ug/L		93	70 - 130
1,1,2-Trichloroethane	5.00	5.11		ug/L		102	70 - 130
1,1-Dichloroethane	5.00	4.74		ug/L		95	70 - 130
1,1-Dichlorethylene	5.00	4.80		ug/L		96	70 - 130
1,1-Dichloropropene	5.00	4.61		ug/L		92	70 - 130
1,2,3-Trichlorobenzene	5.00	4.43		ug/L		89	70 - 130
1,2,3-Trichloropropane	5.00	4.48		ug/L		90	70 - 130
1,2,4-Trichlorobenzene	5.00	4.53		ug/L		91	70 - 130
1,2,4-Trimethylbenzene	5.00	4.39		ug/L		88	70 - 130
1,2-Dichloroethane	5.00	4.77		ug/L		95	70 - 130
1,2-Dichloropropane	5.00	4.79		ug/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCS 380-85829/5
Matrix: Water
Analysis Batch: 85829

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	5.00	4.53		ug/L		91	70 - 130
1,3-Dichloropropane	5.00	4.71		ug/L		94	70 - 130
2,2-Dichloropropane	5.00	4.94		ug/L		99	70 - 130
2-Butanone (MEK)	50.0	44.1		ug/L		88	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	46.3		ug/L		93	70 - 130
Acetone	50.0	48.0	J	ug/L		96	70 - 130
Benzene	5.00	4.67		ug/L		93	70 - 130
Bromobenzene	5.00	4.44		ug/L		89	70 - 130
Bromochloromethane	5.00	5.72		ug/L		114	70 - 130
Bromodichloromethane	5.00	4.42		ug/L		88	70 - 130
Bromoform	5.00	4.36		ug/L		87	70 - 130
Bromomethane (Methyl Bromide)	5.00	4.93		ug/L		99	70 - 130
Carbon disulfide	5.00	4.72		ug/L		94	70 - 130
Carbon tetrachloride	5.00	4.54		ug/L		91	70 - 130
Chlorobenzene	5.00	4.56		ug/L		91	70 - 130
Chlorodibromomethane	5.00	4.59		ug/L		92	70 - 130
cis-1,3-Dichloropropene	5.00	4.68		ug/L		94	70 - 130
Dichloromethane	5.00	4.82		ug/L		96	70 - 130
Ethylbenzene	5.00	4.68		ug/L		94	70 - 130
Hexachlorobutadiene	5.00	4.62		ug/L		92	70 - 130
Isopropylbenzene	5.00	4.56		ug/L		91	70 - 130
m,p-Xylenes	10.0	8.99		ug/L		90	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	4.39		ug/L		88	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.73		ug/L		95	70 - 130
Naphthalene	5.00	4.44		ug/L		89	70 - 130
n-Butylbenzene	5.00	4.43		ug/L		89	70 - 130
N-Propylbenzene	5.00	4.39		ug/L		88	70 - 130
o-Chlorotoluene	5.00	4.50		ug/L		90	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	4.51		ug/L		90	70 - 130
o-Xylene	5.00	4.39		ug/L		88	70 - 130
p-Chlorotoluene	5.00	4.34		ug/L		87	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	4.41		ug/L		88	70 - 130
p-Isopropyltoluene	5.00	4.46		ug/L		89	70 - 130
sec-Butylbenzene	5.00	4.52		ug/L		90	70 - 130
Styrene	5.00	4.58		ug/L		92	70 - 130
Tert-amyl methyl ether	5.00	4.66		ug/L		93	70 - 130
1,3-Dichloropropene, Total	10.0	9.22		ug/L		92	70 - 130
Tert-butyl ethyl ether	5.00	4.76		ug/L		95	70 - 130
tert-Butylbenzene	5.00	4.29		ug/L		86	70 - 130
Tetrachloroethene (PCE)	5.00	4.83		ug/L		97	70 - 130
Toluene	5.00	4.56		ug/L		91	70 - 130
trans-1,2-Dichloroethylene	5.00	4.90		ug/L		98	70 - 130
trans-1,3-Dichloropropene	5.00	4.54		ug/L		91	70 - 130
Trichloroethylene (TCE)	5.00	4.67		ug/L		93	70 - 130
Bromoethane	5.00	4.69		ug/L		94	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.52		ug/L		90	70 - 130
Trichlorotrifluoroethane	5.00	4.86		ug/L		97	70 - 130
Diisopropyl ether	5.00	4.57		ug/L		91	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCS 380-85829/5
Matrix: Water
Analysis Batch: 85829

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	4.91		ug/L		98	70 - 130
Xylenes, Total	15.0	13.4		ug/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: LCSD 380-85829/6
Matrix: Water
Analysis Batch: 85829

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	4.42		ug/L		88	70 - 130	0	20
1,1,1-Trichloroethane	5.00	4.36		ug/L		87	70 - 130	4	20
1,1,2,2-Tetrachloroethane	5.00	4.58		ug/L		92	70 - 130	2	20
1,1,2-Trichloroethane	5.00	4.96		ug/L		99	70 - 130	3	20
1,1-Dichloroethane	5.00	4.58		ug/L		92	70 - 130	3	20
1,1-Dichlorethylene	5.00	4.54		ug/L		91	70 - 130	6	20
1,1-Dichloropropene	5.00	4.50		ug/L		90	70 - 130	2	20
1,2,3-Trichlorobenzene	5.00	4.46		ug/L		89	70 - 130	1	20
1,2,3-Trichloropropane	5.00	4.38		ug/L		88	70 - 130	2	20
1,2,4-Trichlorobenzene	5.00	4.49		ug/L		90	70 - 130	1	20
1,2,4-Trimethylbenzene	5.00	4.34		ug/L		87	70 - 130	1	20
1,2-Dichloroethane	5.00	4.54		ug/L		91	70 - 130	5	20
1,2-Dichloropropane	5.00	4.53		ug/L		91	70 - 130	5	20
1,3,5-Trimethylbenzene	5.00	4.53		ug/L		91	70 - 130	0	20
1,3-Dichloropropane	5.00	4.54		ug/L		91	70 - 130	4	20
2,2-Dichloropropane	5.00	4.68		ug/L		94	70 - 130	5	20
2-Butanone (MEK)	50.0	43.2		ug/L		86	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	50.0	45.1		ug/L		90	70 - 130	3	20
Acetone	50.0	46.4	J	ug/L		93	70 - 130	4	20
Benzene	5.00	4.50		ug/L		90	70 - 130	4	20
Bromobenzene	5.00	4.35		ug/L		87	70 - 130	2	20
Bromochloromethane	5.00	5.48		ug/L		110	70 - 130	4	20
Bromodichloromethane	5.00	4.28		ug/L		86	70 - 130	3	20
Bromoform	5.00	4.25		ug/L		85	70 - 130	2	20
Bromomethane (Methyl Bromide)	5.00	4.66		ug/L		93	70 - 130	6	20
Carbon disulfide	5.00	4.57		ug/L		91	70 - 130	3	20
Carbon tetrachloride	5.00	4.34		ug/L		87	70 - 130	4	20
Chlorobenzene	5.00	4.47		ug/L		89	70 - 130	2	20
Chlorodibromomethane	5.00	4.41		ug/L		88	70 - 130	4	20
cis-1,3-Dichloropropene	5.00	4.50		ug/L		90	70 - 130	4	20
Dichloromethane	5.00	4.55		ug/L		91	70 - 130	6	20
Ethylbenzene	5.00	4.58		ug/L		92	70 - 130	2	20
Hexachlorobutadiene	5.00	4.45		ug/L		89	70 - 130	4	20
Isopropylbenzene	5.00	4.45		ug/L		89	70 - 130	2	20
m,p-Xylenes	10.0	8.90		ug/L		89	70 - 130	1	20

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85829/6
Matrix: Water
Analysis Batch: 85829

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	4.35		ug/L		87	70 - 130	1	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.60		ug/L		92	70 - 130	3	20
Naphthalene	5.00	4.45		ug/L		89	70 - 130	0	20
n-Butylbenzene	5.00	4.42		ug/L		88	70 - 130	0	20
N-Propylbenzene	5.00	4.39		ug/L		88	70 - 130	0	20
o-Chlorotoluene	5.00	4.44		ug/L		89	70 - 130	1	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.38		ug/L		88	70 - 130	3	20
o-Xylene	5.00	4.40		ug/L		88	70 - 130	0	20
p-Chlorotoluene	5.00	4.43		ug/L		89	70 - 130	2	20
p-Dichlorobenzene (1,4-DCB)	5.00	4.30		ug/L		86	70 - 130	3	20
p-Isopropyltoluene	5.00	4.44		ug/L		89	70 - 130	0	20
sec-Butylbenzene	5.00	4.42		ug/L		88	70 - 130	2	20
Styrene	5.00	4.39		ug/L		88	70 - 130	4	20
Tert-amyl methyl ether	5.00	4.58		ug/L		92	70 - 130	2	20
1,3-Dichloropropene, Total	10.0	8.95		ug/L		90	70 - 130	3	20
Tert-butyl ethyl ether	5.00	4.36		ug/L		87	70 - 130	9	20
tert-Butylbenzene	5.00	4.23		ug/L		85	70 - 130	1	20
Tetrachloroethene (PCE)	5.00	4.64		ug/L		93	70 - 130	4	20
Toluene	5.00	4.40		ug/L		88	70 - 130	4	20
trans-1,2-Dichloroethylene	5.00	4.80		ug/L		96	70 - 130	2	20
trans-1,3-Dichloropropene	5.00	4.45		ug/L		89	70 - 130	2	20
Trichloroethylene (TCE)	5.00	4.53		ug/L		91	70 - 130	3	20
Bromoethane	5.00	4.70		ug/L		94	70 - 130	0	20
Trichlorofluoromethane (Freon 11)	5.00	4.46		ug/L		89	70 - 130	1	20
Trichlorotrifluoroethane	5.00	4.66		ug/L		93	70 - 130	4	20
Diisopropyl ether	5.00	4.50		ug/L		90	70 - 130	1	20
Vinyl Chloride (VC)	5.00	4.56		ug/L		91	70 - 130	7	20
Xylenes, Total	15.0	13.3		ug/L		89	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: MRL 380-85829/3
Matrix: Water
Analysis Batch: 85829

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	0.579		ug/L		116	50 - 150
Vinyl Chloride (VC)	0.250	0.159	J	ug/L		63	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	97		70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MRL 380-85829/4
Matrix: Water
Analysis Batch: 85829

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	0.540		ug/L		108	50 - 150
1,1,1-Trichloroethane	0.500	0.529		ug/L		106	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.625		ug/L		125	50 - 150
1,1,2-Trichloroethane	0.500	0.505		ug/L		101	50 - 150
1,1-Dichloroethane	0.500	0.616		ug/L		123	50 - 150
1,1-Dichlorethylene	0.500	0.518		ug/L		104	50 - 150
1,1-Dichloropropene	0.500	0.538		ug/L		108	50 - 150
1,2,3-Trichlorobenzene	0.500	0.504		ug/L		101	50 - 150
1,2,3-Trichloropropane	0.500	0.575		ug/L		115	50 - 150
1,2,4-Trichlorobenzene	0.500	0.534		ug/L		107	50 - 150
1,2,4-Trimethylbenzene	0.500	0.535		ug/L		107	50 - 150
1,2-Dichloroethane	0.500	0.538		ug/L		108	50 - 150
1,2-Dichloropropane	0.500	0.608		ug/L		122	50 - 150
1,3,5-Trimethylbenzene	0.500	0.503		ug/L		101	50 - 150
1,3-Dichloropropane	0.500	0.583		ug/L		117	50 - 150
2,2-Dichloropropane	0.500	0.692		ug/L		138	50 - 150
2-Butanone (MEK)	5.00	6.23		ug/L		125	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	5.41		ug/L		108	50 - 150
Acetone	5.00	6.66	J	ug/L		133	50 - 150
Benzene	0.500	0.559		ug/L		112	50 - 150
Bromobenzene	0.500	0.568		ug/L		114	50 - 150
Bromochloromethane	0.500	0.516		ug/L		103	50 - 150
Bromodichloromethane	0.500	0.513		ug/L		103	50 - 150
Bromoform	0.500	0.482	J	ug/L		96	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.716		ug/L		143	50 - 150
Carbon disulfide	0.500	0.611		ug/L		122	50 - 150
Carbon tetrachloride	0.500	0.538		ug/L		108	50 - 150
Chlorobenzene	0.500	0.543		ug/L		109	50 - 150
Chlorodibromomethane	0.500	0.565		ug/L		113	50 - 150
cis-1,3-Dichloropropene	0.500	0.578		ug/L		116	50 - 150
Dichloromethane	0.500	0.538		ug/L		108	50 - 150
Ethylbenzene	0.500	0.553		ug/L		111	50 - 150
Hexachlorobutadiene	0.500	0.504		ug/L		101	50 - 150
Isopropylbenzene	0.500	0.531		ug/L		106	50 - 150
m,p-Xylenes	1.00	1.04		ug/L		104	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.555		ug/L		111	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.540		ug/L		108	50 - 150
Naphthalene	0.500	0.523		ug/L		105	50 - 150
n-Butylbenzene	0.500	0.508		ug/L		102	50 - 150
N-Propylbenzene	0.500	0.532		ug/L		106	50 - 150
o-Chlorotoluene	0.500	0.565		ug/L		113	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.566		ug/L		113	50 - 150
o-Xylene	0.500	0.521		ug/L		104	50 - 150
p-Chlorotoluene	0.500	0.516		ug/L		103	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.554		ug/L		111	50 - 150
p-Isopropyltoluene	0.500	0.520		ug/L		104	50 - 150
sec-Butylbenzene	0.500	0.512		ug/L		102	50 - 150
Styrene	0.500	0.523		ug/L		105	50 - 150

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MRL 380-85829/4
Matrix: Water
Analysis Batch: 85829

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	0.559	J	ug/L		112	50 - 150
1,3-Dichloropropene, Total	1.00	1.15		ug/L		115	50 - 150
Tert-butyl ethyl ether	0.500	0.579	J	ug/L		116	50 - 150
tert-Butylbenzene	0.500	0.531		ug/L		106	50 - 150
Tetrachloroethene (PCE)	0.500	0.567		ug/L		113	50 - 150
Toluene	0.500	0.576		ug/L		115	50 - 150
trans-1,2-Dichloroethylene	0.500	0.574		ug/L		115	50 - 150
trans-1,3-Dichloropropene	0.500	0.569		ug/L		114	50 - 150
Trichloroethylene (TCE)	0.500	0.484	J	ug/L		97	50 - 150
Bromoethane	0.500	0.569		ug/L		114	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.477	J	ug/L		95	50 - 150
Trichlorotrifluoroethane	0.500	0.580		ug/L		116	50 - 150
Diisopropyl ether	0.500	0.564	J	ug/L		113	50 - 150
Vinyl Chloride (VC)	0.500	0.411		ug/L		82	50 - 150
Xylenes, Total	1.50	1.56		ug/L		104	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: MB 380-85832/5
Matrix: Water
Analysis Batch: 85832

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			04/15/24 01:37	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 01:37	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/15/24 01:37	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/15/24 01:37	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/15/24 01:37	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/15/24 01:37	1
Acetone	<500		500	ug/L			04/15/24 01:37	1
Benzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Bromobenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Bromochloromethane	<0.50		0.50	ug/L			04/15/24 01:37	1

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85832/5
Matrix: Water
Analysis Batch: 85832

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bromodichloromethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Bromoform	<0.50		0.50	ug/L			04/15/24 01:37	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/15/24 01:37	1
Carbon disulfide	<0.50		0.50	ug/L			04/15/24 01:37	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/15/24 01:37	1
Chlorobenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Chloroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/15/24 01:37	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 01:37	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 01:37	1
Dibromomethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Dichloromethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Ethylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Hexachlorobutadiene	<0.50		0.50	ug/L			04/15/24 01:37	1
Isopropylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
m,p-Xylenes	<0.50		0.50	ug/L			04/15/24 01:37	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/15/24 01:37	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/15/24 01:37	1
Naphthalene	<0.50		0.50	ug/L			04/15/24 01:37	1
n-Butylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
N-Propylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 01:37	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/15/24 01:37	1
o-Xylene	<0.50		0.50	ug/L			04/15/24 01:37	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/15/24 01:37	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/15/24 01:37	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/15/24 01:37	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Styrene	<0.50		0.50	ug/L			04/15/24 01:37	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/15/24 01:37	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/15/24 01:37	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/15/24 01:37	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/15/24 01:37	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/15/24 01:37	1
Toluene	<0.50		0.50	ug/L			04/15/24 01:37	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/15/24 01:37	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/15/24 01:37	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/15/24 01:37	1
Bromoethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/15/24 01:37	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/15/24 01:37	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/15/24 01:37	1
Diisopropyl ether	<3.0		3.0	ug/L			04/15/24 01:37	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/15/24 01:37	1
Xylenes, Total	<0.50		0.50	ug/L			04/15/24 01:37	1

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85832/5
Matrix: Water
Analysis Batch: 85832

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

Tentatively Identified Compound	MB MB		Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Unknown	1.74	T J	ug/L		5.36	N/A		04/15/24 01:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					04/15/24 01:37	1
4-Bromofluorobenzene (Surr)	100		70 - 130					04/15/24 01:37	1
Toluene-d8 (Surr)	98		70 - 130					04/15/24 01:37	1

Lab Sample ID: LCS 380-85832/3
Matrix: Water
Analysis Batch: 85832

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	4.30		ug/L		86	70 - 130
1,1,1-Trichloroethane	5.00	4.58		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.71		ug/L		94	70 - 130
1,1,2-Trichloroethane	5.00	5.03		ug/L		101	70 - 130
1,1-Dichloroethane	5.00	4.78		ug/L		96	70 - 130
1,1-Dichlorethylene	5.00	4.74		ug/L		95	70 - 130
1,1-Dichloropropene	5.00	4.65		ug/L		93	70 - 130
1,2,3-Trichlorobenzene	5.00	4.47		ug/L		89	70 - 130
1,2,3-Trichloropropane	5.00	4.49		ug/L		90	70 - 130
1,2,4-Trichlorobenzene	5.00	4.69		ug/L		94	70 - 130
1,2,4-Trimethylbenzene	5.00	4.60		ug/L		92	70 - 130
1,2-Dichloroethane	5.00	4.70		ug/L		94	70 - 130
1,2-Dichloropropane	5.00	4.62		ug/L		92	70 - 130
1,3,5-Trimethylbenzene	5.00	4.74		ug/L		95	70 - 130
1,3-Dichloropropane	5.00	4.61		ug/L		92	70 - 130
2,2-Dichloropropane	5.00	4.59		ug/L		92	70 - 130
2-Butanone (MEK)	50.0	43.4		ug/L		87	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	43.6		ug/L		87	70 - 130
Acetone	50.0	54.6	J	ug/L		109	70 - 130
Benzene	5.00	4.65		ug/L		93	70 - 130
Bromobenzene	5.00	4.57		ug/L		91	70 - 130
Bromochloromethane	5.00	4.76		ug/L		95	70 - 130
Bromodichloromethane	5.00	4.37		ug/L		87	70 - 130
Bromoform	5.00	3.93		ug/L		79	70 - 130
Bromomethane (Methyl Bromide)	5.00	5.12		ug/L		102	70 - 130
Carbon disulfide	5.00	4.88		ug/L		98	70 - 130
Carbon tetrachloride	5.00	4.52		ug/L		90	70 - 130
Chlorobenzene	5.00	4.54		ug/L		91	70 - 130
Chlorodibromomethane	5.00	4.32		ug/L		86	70 - 130
cis-1,3-Dichloropropene	5.00	4.64		ug/L		93	70 - 130
Dichloromethane	5.00	4.62		ug/L		92	70 - 130
Ethylbenzene	5.00	4.66		ug/L		93	70 - 130
Hexachlorobutadiene	5.00	4.88		ug/L		98	70 - 130
Isopropylbenzene	5.00	4.72		ug/L		94	70 - 130
m,p-Xylenes	10.0	9.10		ug/L		91	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	4.60		ug/L		92	70 - 130

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCS 380-85832/3
Matrix: Water
Analysis Batch: 85832

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl-tert-butyl Ether (MTBE)	5.00	4.54		ug/L		91	70 - 130
Naphthalene	5.00	4.45		ug/L		89	70 - 130
n-Butylbenzene	5.00	4.50		ug/L		90	70 - 130
N-Propylbenzene	5.00	4.66		ug/L		93	70 - 130
o-Chlorotoluene	5.00	4.66		ug/L		93	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	4.54		ug/L		91	70 - 130
o-Xylene	5.00	4.50		ug/L		90	70 - 130
p-Chlorotoluene	5.00	4.66		ug/L		93	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	4.61		ug/L		92	70 - 130
p-Isopropyltoluene	5.00	4.60		ug/L		92	70 - 130
sec-Butylbenzene	5.00	4.70		ug/L		94	70 - 130
Styrene	5.00	4.60		ug/L		92	70 - 130
Tert-amyl methyl ether	5.00	4.70		ug/L		94	70 - 130
1,3-Dichloropropene, Total	10.0	9.00		ug/L		90	70 - 130
Tert-butyl ethyl ether	5.00	4.65		ug/L		93	70 - 130
tert-Butylbenzene	5.00	4.77		ug/L		95	70 - 130
Tetrachloroethene (PCE)	5.00	4.86		ug/L		97	70 - 130
Toluene	5.00	4.48		ug/L		90	70 - 130
trans-1,2-Dichloroethylene	5.00	4.70		ug/L		94	70 - 130
trans-1,3-Dichloropropene	5.00	4.36		ug/L		87	70 - 130
Trichloroethylene (TCE)	5.00	4.66		ug/L		93	70 - 130
Bromoethane	5.00	4.75		ug/L		95	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.91		ug/L		98	70 - 130
Trichlorotrifluoroethane	5.00	5.14		ug/L		103	70 - 130
Diisopropyl ether	5.00	4.62		ug/L		92	70 - 130
Vinyl Chloride (VC)	5.00	4.96		ug/L		99	70 - 130
Xylenes, Total	15.0	13.6		ug/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: LCSD 380-85832/4
Matrix: Water
Analysis Batch: 85832

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	4.08		ug/L		82	70 - 130	5	20
1,1,1-Trichloroethane	5.00	4.05		ug/L		81	70 - 130	12	20
1,1,1,2,2-Tetrachloroethane	5.00	4.51		ug/L		90	70 - 130	4	20
1,1,2-Trichloroethane	5.00	4.53		ug/L		91	70 - 130	10	20
1,1-Dichloroethane	5.00	4.39		ug/L		88	70 - 130	9	20
1,1-Dichloroethylene	5.00	4.21		ug/L		84	70 - 130	12	20
1,1-Dichloropropene	5.00	4.02		ug/L		80	70 - 130	14	20
1,2,3-Trichlorobenzene	5.00	4.30		ug/L		86	70 - 130	4	20
1,2,3-Trichloropropane	5.00	4.28		ug/L		86	70 - 130	5	20
1,2,4-Trichlorobenzene	5.00	4.31		ug/L		86	70 - 130	8	20

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85832/4
Matrix: Water
Analysis Batch: 85832

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
1,2,4-Trimethylbenzene	5.00	4.26		ug/L		85	70 - 130	8	20
1,2-Dichloroethane	5.00	4.37		ug/L		87	70 - 130	7	20
1,2-Dichloropropane	5.00	4.21		ug/L		84	70 - 130	9	20
1,3,5-Trimethylbenzene	5.00	4.29		ug/L		86	70 - 130	10	20
1,3-Dichloropropane	5.00	4.38		ug/L		88	70 - 130	5	20
2,2-Dichloropropane	5.00	3.92		ug/L		78	70 - 130	16	20
2-Butanone (MEK)	50.0	41.8		ug/L		84	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	50.0	41.6		ug/L		83	70 - 130	5	20
Acetone	50.0	42.3	J *1	ug/L		85	70 - 130	25	20
Benzene	5.00	4.27		ug/L		85	70 - 130	9	20
Bromobenzene	5.00	4.37		ug/L		87	70 - 130	4	20
Bromochloromethane	5.00	3.72	*1	ug/L		74	70 - 130	25	20
Bromodichloromethane	5.00	4.00		ug/L		80	70 - 130	9	20
Bromoform	5.00	3.68		ug/L		74	70 - 130	6	20
Bromomethane (Methyl Bromide)	5.00	4.43		ug/L		89	70 - 130	15	20
Carbon disulfide	5.00	4.25		ug/L		85	70 - 130	14	20
Carbon tetrachloride	5.00	4.11		ug/L		82	70 - 130	9	20
Chlorobenzene	5.00	4.21		ug/L		84	70 - 130	7	20
Chlorodibromomethane	5.00	3.91		ug/L		78	70 - 130	10	20
cis-1,3-Dichloropropene	5.00	4.26		ug/L		85	70 - 130	9	20
Dichloromethane	5.00	4.30		ug/L		86	70 - 130	7	20
Ethylbenzene	5.00	4.16		ug/L		83	70 - 130	11	20
Hexachlorobutadiene	5.00	4.17		ug/L		83	70 - 130	16	20
Isopropylbenzene	5.00	4.33		ug/L		87	70 - 130	9	20
m,p-Xylenes	10.0	8.20		ug/L		82	70 - 130	10	20
m-Dichlorobenzene (1,3-DCB)	5.00	4.35		ug/L		87	70 - 130	6	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.37		ug/L		87	70 - 130	4	20
Naphthalene	5.00	4.20		ug/L		84	70 - 130	6	20
n-Butylbenzene	5.00	4.05		ug/L		81	70 - 130	11	20
N-Propylbenzene	5.00	4.25		ug/L		85	70 - 130	9	20
o-Chlorotoluene	5.00	4.25		ug/L		85	70 - 130	9	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.30		ug/L		86	70 - 130	5	20
o-Xylene	5.00	4.06		ug/L		81	70 - 130	10	20
p-Chlorotoluene	5.00	4.31		ug/L		86	70 - 130	8	20
p-Dichlorobenzene (1,4-DCB)	5.00	4.39		ug/L		88	70 - 130	5	20
p-Isopropyltoluene	5.00	4.17		ug/L		83	70 - 130	10	20
sec-Butylbenzene	5.00	4.34		ug/L		87	70 - 130	8	20
Styrene	5.00	4.05		ug/L		81	70 - 130	13	20
Tert-amyl methyl ether	5.00	4.30		ug/L		86	70 - 130	9	20
1,3-Dichloropropene, Total	10.0	8.39		ug/L		84	70 - 130	7	20
Tert-butyl ethyl ether	5.00	4.30		ug/L		86	70 - 130	8	20
tert-Butylbenzene	5.00	4.42		ug/L		88	70 - 130	8	20
Tetrachloroethene (PCE)	5.00	4.39		ug/L		88	70 - 130	10	20
Toluene	5.00	4.08		ug/L		82	70 - 130	9	20
trans-1,2-Dichloroethylene	5.00	4.37		ug/L		87	70 - 130	7	20
trans-1,3-Dichloropropene	5.00	4.13		ug/L		83	70 - 130	5	20
Trichloroethylene (TCE)	5.00	4.17		ug/L		83	70 - 130	11	20
Bromoethane	5.00	4.29		ug/L		86	70 - 130	10	20

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85832/4
Matrix: Water
Analysis Batch: 85832

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
Trichlorofluoromethane (Freon 11)	5.00	4.30		ug/L		86	70 - 130	13	20
Trichlorotrifluoroethane	5.00	4.41		ug/L		88	70 - 130	15	20
Diisopropyl ether	5.00	4.21		ug/L		84	70 - 130	9	20
Vinyl Chloride (VC)	5.00	4.35		ug/L		87	70 - 130	13	20
Xylenes, Total	15.0	12.3		ug/L		82	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Toluene-d8 (Surr)	98		70 - 130

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

Lab Sample ID: MB 380-85520/22
Matrix: Water
Analysis Batch: 85520

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			04/11/24 16:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/11/24 16:43	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/11/24 16:43	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		04/11/24 16:43	1

Lab Sample ID: LCS 380-85520/19
Matrix: Water
Analysis Batch: 85520

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	5.40		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130

Lab Sample ID: LCSD 380-85520/20
Matrix: Water
Analysis Batch: 85520

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	5.40		ug/L		108	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85520/20
Matrix: Water
Analysis Batch: 85520

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

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

Lab Sample ID: MRL 380-85520/21
Matrix: Water
Analysis Batch: 85520

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		50 - 150
4-Bromofluorobenzene (Surr)	98		50 - 150
1,2-Dichloroethane-d4 (Surr)	101		50 - 150

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

Lab Sample ID: MB 380-85424/21-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85424

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2,4'-DDD	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
2,4'-DDE	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
2,4'-DDT	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
4,4'-DDD	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
4,4'-DDE	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
4,4'-DDT	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Acenaphthene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Acenaphthylene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Acetochlor	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Alachlor	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
alpha-BHC	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
alpha-Chlordane	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Anthracene	<0.020		0.020	ug/L		04/11/24 10:22	04/12/24 12:39	1
Atrazine	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Benzo[a]pyrene	<0.020		0.020	ug/L		04/11/24 10:22	04/12/24 12:39	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		04/11/24 10:22	04/12/24 12:39	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		04/11/24 10:22	04/12/24 12:39	1
beta-BHC	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		04/11/24 10:22	04/12/24 12:39	1
Bromacil	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Butachlor	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/11/24 10:22	04/12/24 12:39	1
Chlorobenzilate	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85424/21-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85424

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroneb	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Chlorpyrifos	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Chrysene	<0.020		0.020	ug/L		04/11/24 10:22	04/12/24 12:39	1
delta-BHC	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		04/11/24 10:22	04/12/24 12:39	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Dieldrin	<0.20		0.20	ug/L		04/11/24 10:22	04/12/24 12:39	1
Diethylphthalate	<0.49		0.49	ug/L		04/11/24 10:22	04/12/24 12:39	1
Dimethylphthalate	<0.49		0.49	ug/L		04/11/24 10:22	04/12/24 12:39	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		04/11/24 10:22	04/12/24 12:39	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Endosulfan sulfate	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Endrin	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Endrin aldehyde	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
EPTC	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Fluoranthene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Fluorene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
gamma-BHC (Lindane)	<0.039		0.039	ug/L		04/11/24 10:22	04/12/24 12:39	1
gamma-Chlordane	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Heptachlor	<0.039		0.039	ug/L		04/11/24 10:22	04/12/24 12:39	1
Heptachlor epoxide (isomer B)	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Hexachlorobenzene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Isophorone	<0.49		0.49	ug/L		04/11/24 10:22	04/12/24 12:39	1
Malathion	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Methoxychlor	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Metolachlor	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Molinate	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Naphthalene	<0.29		0.29	ug/L		04/11/24 10:22	04/12/24 12:39	1
Parathion	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Phenanthrene	<0.039		0.039	ug/L		04/11/24 10:22	04/12/24 12:39	1
Propachlor	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Pyrene	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Simazine	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Terbacil	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Terbutylazine	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
Thiobencarb	<0.20		0.20	ug/L		04/11/24 10:22	04/12/24 12:39	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		04/11/24 10:22	04/12/24 12:39	1
trans-Nonachlor	<0.049		0.049	ug/L		04/11/24 10:22	04/12/24 12:39	1
Trifluralin	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
1-Methylnaphthalene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1
2-Methylnaphthalene	<0.098		0.098	ug/L		04/11/24 10:22	04/12/24 12:39	1

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85424/21-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85424

<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>
Unknown	0.656	T J	ug/L		10.81	N/A	04/11/24 10:22	04/12/24 12:39	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
2-Nitro-m-xylene	100		70 - 130	04/11/24 10:22	04/12/24 12:39	1
Perylene-d12	99		70 - 130	04/11/24 10:22	04/12/24 12:39	1
Triphenylphosphate	105		70 - 130	04/11/24 10:22	04/12/24 12:39	1

Lab Sample ID: LCS 380-85424/23-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85424

<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>
2,4'-DDD	1.95	2.02		ug/L		104	70 - 130
2,4'-DDE	1.95	2.16		ug/L		111	70 - 130
2,4'-DDT	1.95	2.25		ug/L		115	70 - 130
2,4-Dinitrotoluene	1.95	2.42		ug/L		124	70 - 130
2,6-Dinitrotoluene	1.95	2.32		ug/L		119	70 - 130
4,4'-DDD	1.95	2.05		ug/L		105	70 - 130
4,4'-DDE	1.95	1.91		ug/L		98	70 - 130
4,4'-DDT	1.95	2.33		ug/L		119	70 - 130
Acenaphthene	1.95	1.78		ug/L		92	70 - 130
Acenaphthylene	1.95	1.80		ug/L		93	70 - 130
Acetochlor	1.95	1.81		ug/L		93	70 - 130
Alachlor	1.95	1.97		ug/L		101	70 - 130
alpha-BHC	1.95	2.18		ug/L		112	70 - 130
alpha-Chlordane	1.95	1.71		ug/L		88	70 - 130
Anthracene	1.95	1.52		ug/L		78	70 - 130
Atrazine	1.95	2.05		ug/L		105	70 - 130
Benz(a)anthracene	1.95	1.96		ug/L		101	70 - 130
Benzo[a]pyrene	1.95	1.88		ug/L		96	70 - 130
Benzo[b]fluoranthene	1.95	2.11		ug/L		108	70 - 130
Benzo[g,h,i]perylene	1.95	2.17		ug/L		111	70 - 130
Benzo[k]fluoranthene	1.95	2.20		ug/L		113	70 - 130
beta-BHC	1.95	2.14		ug/L		110	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.61		ug/L		82	70 - 130
Bromacil	1.95	2.96	*+	ug/L		152	70 - 130
Butachlor	1.95	1.99		ug/L		102	70 - 130
Butylbenzylphthalate	1.95	2.08		ug/L		107	70 - 130
Chlorobenzilate	1.95	2.14		ug/L		110	70 - 130
Chloroneb	1.95	2.07		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	1.92		ug/L		98	70 - 130
Chlorpyrifos	1.95	2.27		ug/L		116	70 - 130
Chrysene	1.95	2.16		ug/L		111	70 - 130
delta-BHC	1.95	2.07		ug/L		106	70 - 130
Di(2-ethylhexyl)adipate	1.95	1.95		ug/L		100	70 - 130
Dibenz(a,h)anthracene	1.95	2.16		ug/L		111	70 - 130
Diclorvos (DDVP)	1.95	2.12		ug/L		109	70 - 130
Dieldrin	1.95	2.05		ug/L		105	70 - 130

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCS 380-85424/23-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diethylphthalate	1.95	1.92		ug/L		98	70 - 130
Dimethylphthalate	1.95	1.92		ug/L		98	70 - 130
Di-n-butyl phthalate	3.90	4.37		ug/L		112	70 - 130
Di-n-octyl phthalate	1.95	1.65		ug/L		84	70 - 130
Endosulfan I (Alpha)	1.95	2.02		ug/L		104	70 - 130
Endosulfan II (Beta)	1.95	2.17		ug/L		112	70 - 130
Endosulfan sulfate	1.95	2.24		ug/L		115	70 - 130
Endrin	1.95	2.23		ug/L		115	70 - 130
Endrin aldehyde	1.95	1.86		ug/L		95	60 - 130
EPTC	1.95	2.15		ug/L		110	70 - 130
Fluoranthene	1.95	2.17		ug/L		111	70 - 130
Fluorene	1.95	1.98		ug/L		101	70 - 130
gamma-BHC (Lindane)	1.95	2.18		ug/L		112	70 - 130
gamma-Chlordane	1.95	1.75		ug/L		90	70 - 130
Heptachlor	1.95	2.20		ug/L		113	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.87		ug/L		96	70 - 130
Hexachlorobenzene	1.95	2.10		ug/L		107	70 - 130
Hexachlorocyclopentadiene	1.95	2.15		ug/L		110	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.15		ug/L		110	70 - 130
Isophorone	1.95	1.79		ug/L		92	70 - 130
Malathion	1.95	1.99		ug/L		102	70 - 130
Methoxychlor	1.95	2.39		ug/L		123	70 - 130
Metolachlor	1.95	2.02		ug/L		103	70 - 130
Molinate	1.95	2.16		ug/L		111	70 - 130
Naphthalene	1.95	1.99		ug/L		102	70 - 130
Parathion	1.95	2.45		ug/L		125	70 - 130
Pendimethalin (Penoxaline)	1.95	2.38		ug/L		122	70 - 130
Phenanthrene	1.95	1.89		ug/L		97	70 - 130
Propachlor	1.95	2.10		ug/L		108	70 - 130
Pyrene	1.95	2.20		ug/L		113	70 - 130
Simazine	1.95	2.05		ug/L		105	70 - 130
Terbacil	1.95	2.18		ug/L		112	70 - 130
Terbutylazine	1.95	2.05		ug/L		105	70 - 130
Thiobencarb	1.95	1.87		ug/L		96	70 - 130
trans-Nonachlor	1.95	2.00		ug/L		103	70 - 130
Trifluralin	1.95	2.19		ug/L		112	70 - 130
1-Methylnaphthalene	1.95	2.02		ug/L		104	70 - 130
2-Methylnaphthalene	1.95	2.07		ug/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	105		70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85424/24-A

Matrix: Water

Analysis Batch: 85639

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 85424

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
2,4'-DDD	1.96	2.05		ug/L		105	70 - 130	1		20
2,4'-DDE	1.96	2.16		ug/L		110	70 - 130	0		20
2,4'-DDT	1.96	2.33		ug/L		119	70 - 130	3		20
2,4-Dinitrotoluene	1.96	2.57	*+	ug/L		131	70 - 130	6		20
2,6-Dinitrotoluene	1.96	2.45		ug/L		125	70 - 130	5		20
4,4'-DDD	1.96	2.06		ug/L		105	70 - 130	1		20
4,4'-DDE	1.96	1.98		ug/L		101	70 - 130	4		20
4,4'-DDT	1.96	2.40		ug/L		123	70 - 130	3		20
Acenaphthene	1.96	1.81		ug/L		93	70 - 130	1		20
Acenaphthylene	1.96	1.82		ug/L		93	70 - 130	1		20
Acetochlor	1.96	1.76		ug/L		90	70 - 130	3		20
Alachlor	1.96	1.91		ug/L		98	70 - 130	3		20
alpha-BHC	1.96	2.18		ug/L		111	70 - 130	0		20
alpha-Chlordane	1.96	1.67		ug/L		85	70 - 130	2		20
Anthracene	1.96	1.56		ug/L		80	70 - 130	3		20
Atrazine	1.96	2.11		ug/L		108	70 - 130	3		20
Benz(a)anthracene	1.96	1.95		ug/L		100	70 - 130	0		20
Benzo[a]pyrene	1.96	1.87		ug/L		96	70 - 130	0		20
Benzo[b]fluoranthene	1.96	2.07		ug/L		106	70 - 130	2		20
Benzo[g,h,i]perylene	1.96	2.05		ug/L		105	70 - 130	5		20
Benzo[k]fluoranthene	1.96	2.29		ug/L		117	70 - 130	4		20
beta-BHC	1.96	2.21		ug/L		113	70 - 130	3		20
Bis(2-ethylhexyl) phthalate	1.96	1.81		ug/L		92	70 - 130	12		20
Bromacil	1.96	3.00	*+	ug/L		153	70 - 130	1		20
Butachlor	1.96	1.93		ug/L		99	70 - 130	3		20
Butylbenzylphthalate	1.96	2.05		ug/L		105	70 - 130	2		20
Chlorobenzilate	1.96	2.13		ug/L		109	70 - 130	1		20
Chloroneb	1.96	2.14		ug/L		110	70 - 130	4		20
Chlorothalonil (Draconil, Bravo)	1.96	2.01		ug/L		103	70 - 130	5		20
Chlorpyrifos	1.96	2.23		ug/L		114	70 - 130	1		20
Chrysene	1.96	2.19		ug/L		112	70 - 130	1		20
delta-BHC	1.96	2.05		ug/L		105	70 - 130	1		20
Di(2-ethylhexyl)adipate	1.96	2.03		ug/L		104	70 - 130	4		20
Dibenz(a,h)anthracene	1.96	2.06		ug/L		105	70 - 130	5		20
Diclorvos (DDVP)	1.96	2.20		ug/L		112	70 - 130	3		20
Dieldrin	1.96	2.01		ug/L		103	70 - 130	2		20
Diethylphthalate	1.96	1.97		ug/L		101	70 - 130	3		20
Dimethylphthalate	1.96	1.95		ug/L		100	70 - 130	2		20
Di-n-butyl phthalate	3.91	4.32		ug/L		110	70 - 130	1		20
Di-n-octyl phthalate	1.96	1.93		ug/L		99	70 - 130	16		20
Endosulfan I (Alpha)	1.96	1.99		ug/L		102	70 - 130	2		20
Endosulfan II (Beta)	1.96	2.14		ug/L		109	70 - 130	2		20
Endosulfan sulfate	1.96	2.23		ug/L		114	70 - 130	1		20
Endrin	1.96	2.25		ug/L		115	70 - 130	1		20
Endrin aldehyde	1.96	1.88		ug/L		96	60 - 130	2		20
EPTC	1.96	2.12		ug/L		108	70 - 130	1		20
Fluoranthene	1.96	2.19		ug/L		112	70 - 130	1		20
Fluorene	1.96	2.01		ug/L		103	70 - 130	2		20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCSD 380-85424/24-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
gamma-BHC (Lindane)	1.96	2.25		ug/L		115	70 - 130	3	20
gamma-Chlordane	1.96	1.76		ug/L		90	70 - 130	0	20
Heptachlor	1.96	2.19		ug/L		112	70 - 130	1	20
Heptachlor epoxide (isomer B)	1.96	1.86		ug/L		95	70 - 130	1	20
Hexachlorobenzene	1.96	2.16		ug/L		111	70 - 130	3	20
Hexachlorocyclopentadiene	1.96	2.15		ug/L		110	70 - 130	0	20
Indeno[1,2,3-cd]pyrene	1.96	2.08		ug/L		106	70 - 130	3	20
Isophorone	1.96	1.78		ug/L		91	70 - 130	1	20
Malathion	1.96	1.95		ug/L		100	70 - 130	2	20
Methoxychlor	1.96	2.41		ug/L		123	70 - 130	1	20
Metolachlor	1.96	1.99		ug/L		102	70 - 130	2	20
Molinate	1.96	2.14		ug/L		110	70 - 130	0	20
Naphthalene	1.96	1.92		ug/L		98	70 - 130	4	20
Parathion	1.96	2.44		ug/L		125	70 - 130	0	20
Pendimethalin (Penoxaline)	1.96	2.37		ug/L		121	70 - 130	1	20
Phenanthrene	1.96	1.93		ug/L		99	70 - 130	2	20
Propachlor	1.96	2.14		ug/L		110	70 - 130	2	20
Pyrene	1.96	2.22		ug/L		114	70 - 130	1	20
Simazine	1.96	2.18		ug/L		111	70 - 130	6	20
Terbacil	1.96	2.21		ug/L		113	70 - 130	1	20
Terbutylazine	1.96	2.09		ug/L		107	70 - 130	2	20
Thiobencarb	1.96	1.88		ug/L		96	70 - 130	1	20
trans-Nonachlor	1.96	1.94		ug/L		99	70 - 130	3	20
Trifluralin	1.96	2.21		ug/L		113	70 - 130	1	20
1-Methylnaphthalene	1.96	2.01		ug/L		103	70 - 130	1	20
2-Methylnaphthalene	1.96	2.07		ug/L		106	70 - 130	0	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	93		70 - 130
Triphenylphosphate	101		70 - 130

Lab Sample ID: MRL 380-85424/22-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0976	0.118		ug/L		121	50 - 150
2,4'-DDE	0.0976	0.113		ug/L		116	50 - 150
2,4'-DDT	0.0976	0.137		ug/L		140	50 - 150
2,4-Dinitrotoluene	0.0976	0.125		ug/L		128	50 - 150
2,6-Dinitrotoluene	0.0976	0.124		ug/L		127	50 - 150
4,4'-DDD	0.0976	0.113		ug/L		116	50 - 150
4,4'-DDE	0.0976	0.0920	J	ug/L		94	50 - 150
4,4'-DDT	0.0976	0.152	^3+	ug/L		156	50 - 150
Acenaphthene	0.0976	0.0972	J	ug/L		100	50 - 150
Acenaphthylene	0.0976	0.0961	J	ug/L		99	50 - 150
Acetochlor	0.0488	0.0515	J	ug/L		106	50 - 150

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MRL 380-85424/22-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alachlor	0.0488	0.0431	J	ug/L		88	50 - 150
alpha-BHC	0.0976	0.109		ug/L		112	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		101	50 - 150
Anthracene	0.0195	<0.019		ug/L		94	50 - 150
Atrazine	0.0488	0.0594		ug/L		122	50 - 150
Benz(a)anthracene	0.0488	0.0620		ug/L		127	50 - 150
Benzo[a]pyrene	0.0195	0.0181	J	ug/L		93	50 - 150
Benzo[b]fluoranthene	0.0195	0.0213		ug/L		109	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0427	J	ug/L		88	50 - 150
Benzo[k]fluoranthene	0.0195	0.0204		ug/L		105	50 - 150
beta-BHC	0.0976	0.112		ug/L		115	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.613		ug/L		105	50 - 150
Bromacil	0.0976	0.111		ug/L		114	50 - 150
Butachlor	0.0488	0.0531		ug/L		109	50 - 150
Butylbenzylphthalate	0.146	0.158	J	ug/L		108	50 - 150
Chlorobenzilate	0.0976	0.113		ug/L		116	50 - 150
Chloroneb	0.0976	0.110		ug/L		112	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0976	0.111		ug/L		114	50 - 150
Chlorpyrifos	0.0488	0.0410	J	ug/L		84	50 - 150
Chrysene	0.0195	0.0306	^3+	ug/L		157	50 - 150
delta-BHC	0.0976	0.114		ug/L		117	50 - 150
Di(2-ethylhexyl)adipate	0.293	0.324	J	ug/L		111	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0411	J	ug/L		84	50 - 150
Diclorvos (DDVP)	0.0488	0.0706		ug/L		145	50 - 150
Dieldrin	0.0976	0.128	J	ug/L		131	50 - 150
Diethylphthalate	0.146	0.182	J	ug/L		124	50 - 150
Dimethylphthalate	0.293	0.304	J	ug/L		104	50 - 150
Di-n-butyl phthalate	0.293	0.399	J	ug/L		136	49 - 243
Di-n-octyl phthalate	0.0976	0.0766	J	ug/L		79	50 - 150
Endosulfan I (Alpha)	0.0976	0.0924	J	ug/L		95	50 - 150
Endosulfan II (Beta)	0.0976	0.109		ug/L		111	50 - 150
Endosulfan sulfate	0.0976	0.106		ug/L		109	50 - 150
Endrin	0.0976	0.114		ug/L		117	50 - 150
Endrin aldehyde	0.0976	0.126		ug/L		129	50 - 150
EPTC	0.0976	0.105		ug/L		108	50 - 150
Fluoranthene	0.0488	0.0457	J	ug/L		94	50 - 150
Fluorene	0.0488	0.0545		ug/L		112	50 - 150
gamma-BHC (Lindane)	0.0390	0.0446		ug/L		114	50 - 150
gamma-Chlordane	0.0244	0.0262	J	ug/L		107	50 - 150
Heptachlor	0.0390	0.0530		ug/L		136	50 - 150
Heptachlor epoxide (isomer B)	0.0488	0.0655		ug/L		134	50 - 150
Hexachlorobenzene	0.0488	0.0476	J	ug/L		98	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0677		ug/L		139	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0407	J	ug/L		84	50 - 150
Isophorone	0.0976	0.102	J	ug/L		105	50 - 150
Malathion	0.0976	0.110		ug/L		112	50 - 150
Methoxychlor	0.0976	0.141		ug/L		144	50 - 150
Metolachlor	0.0488	0.0600		ug/L		123	50 - 150
Molinate	0.0976	0.111		ug/L		114	50 - 150

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MRL 380-85424/22-A
Matrix: Water
Analysis Batch: 85639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	0.0976	0.117	J	ug/L		120	50 - 150
Parathion	0.0976	0.121		ug/L		124	50 - 150
Pendimethalin (Penoxaline)	0.0976	0.132		ug/L		135	50 - 150
Phenanthrene	0.0195	0.0207	J	ug/L		106	50 - 150
Propachlor	0.0488	0.0554		ug/L		114	50 - 150
Pyrene	0.0488	0.0450	J	ug/L		92	50 - 150
Simazine	0.0488	0.0472	J	ug/L		97	50 - 150
Terbacil	0.0976	0.137		ug/L		141	50 - 150
Terbutylazine	0.0976	0.112		ug/L		115	50 - 150
Thiobencarb	0.0976	0.120	J	ug/L		123	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		86	50 - 150
Trifluralin	0.0976	0.117		ug/L		120	50 - 150
1-Methylnaphthalene	0.0976	0.120		ug/L		123	50 - 150
2-Methylnaphthalene	0.0976	0.117		ug/L		120	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85639

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA
Prep Batch: 85424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.097		1.93	2.07		ug/L		107	70 - 130
2,4'-DDE	<0.097		1.93	2.07		ug/L		107	70 - 130
2,4'-DDT	<0.097		1.93	2.19		ug/L		113	70 - 130
2,4-Dinitrotoluene	<0.097	*+ ^+	1.93	2.39		ug/L		124	70 - 130
2,6-Dinitrotoluene	<0.097		1.93	2.32		ug/L		120	70 - 130
4,4'-DDD	<0.097		1.93	2.02		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.93	1.83		ug/L		95	70 - 130
4,4'-DDT	<0.097	^3+	1.93	2.22		ug/L		115	70 - 130
Acenaphthene	<0.097		1.93	1.80		ug/L		93	70 - 130
Acenaphthylene	<0.097		1.93	1.83		ug/L		95	70 - 130
Acetochlor	<0.097		1.93	1.80		ug/L		93	70 - 130
Alachlor	<0.049		1.93	1.95		ug/L		101	70 - 130
alpha-BHC	<0.097		1.93	2.16		ug/L		112	70 - 130
alpha-Chlordane	<0.049		1.93	1.67		ug/L		86	70 - 130
Anthracene	<0.019	F1	1.93	1.11	F1	ug/L		57	70 - 130
Atrazine	<0.049		1.93	1.99		ug/L		103	70 - 130
Benz(a)anthracene	<0.049		1.93	1.82		ug/L		94	70 - 130
Benzo[a]pyrene	<0.019		1.93	1.71		ug/L		88	70 - 130
Benzo[b]fluoranthene	<0.019		1.93	2.07		ug/L		107	70 - 130
Benzo[g,h,i]perylene	<0.049		1.93	2.14		ug/L		111	70 - 130
Benzo[k]fluoranthene	<0.019		1.93	2.16		ug/L		112	70 - 130
beta-BHC	<0.097		1.93	2.07		ug/L		107	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.93	1.51		ug/L		78	70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90697-1 MS

Client Sample ID: AIEA WELLS P2 (260)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85639

Prep Batch: 85424

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Bromacil	<0.097	F1 *+ ^+	1.93	2.96	F1	ug/L		153	70 - 130
Butachlor	<0.049		1.93	1.97		ug/L		102	70 - 130
Butylbenzylphthalate	<0.49		1.93	2.02		ug/L		105	70 - 130
Chlorobenzilate	<0.097		1.93	2.14		ug/L		111	70 - 130
Chloroneb	<0.097		1.93	2.11		ug/L		109	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.93	1.86		ug/L		96	70 - 130
Chlorpyrifos	<0.049		1.93	2.27		ug/L		118	70 - 130
Chrysene	<0.019	^3+	1.93	2.15		ug/L		111	70 - 130
delta-BHC	<0.097		1.93	2.03		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.93	1.79		ug/L		92	70 - 130
Dibenz(a,h)anthracene	<0.049		1.93	2.07		ug/L		107	70 - 130
Diclorvos (DDVP)	<0.049		1.93	2.20		ug/L		114	70 - 130
Dieldrin	<0.19		1.93	2.11		ug/L		109	70 - 130
Diethylphthalate	<0.49		1.93	1.90		ug/L		98	70 - 130
Dimethylphthalate	<0.49		1.93	1.94		ug/L		100	70 - 130
Di-n-butyl phthalate	<0.97		3.87	4.29		ug/L		108	70 - 130
Di-n-octyl phthalate	<0.097		1.93	1.55		ug/L		80	70 - 130
Endosulfan I (Alpha)	<0.097		1.93	2.01		ug/L		104	70 - 130
Endosulfan II (Beta)	<0.097		1.93	2.16		ug/L		111	70 - 130
Endosulfan sulfate	<0.097		1.93	2.21		ug/L		114	70 - 130
Endrin	<0.097		1.93	2.26		ug/L		117	70 - 130
Endrin aldehyde	<0.097		1.93	1.77		ug/L		91	60 - 130
EPTC	<0.097		1.93	2.17		ug/L		112	70 - 130
Fluoranthene	<0.097		1.93	2.15		ug/L		111	70 - 130
Fluorene	<0.049		1.93	1.96		ug/L		101	70 - 130
gamma-BHC (Lindane)	<0.039		1.93	2.18		ug/L		112	70 - 130
gamma-Chlordane	<0.049		1.93	1.74		ug/L		90	70 - 130
Heptachlor	<0.039		1.93	2.23		ug/L		115	70 - 130
Heptachlor epoxide (isomer B)	<0.049		1.93	1.87		ug/L		97	70 - 130
Hexachlorobenzene	<0.049		1.93	2.07		ug/L		107	70 - 130
Hexachlorocyclopentadiene	<0.049		1.93	2.22		ug/L		115	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.93	2.11		ug/L		109	70 - 130
Isophorone	<0.49		1.93	1.79		ug/L		92	70 - 130
Malathion	<0.097		1.93	2.01		ug/L		104	70 - 130
Methoxychlor	<0.097		1.93	2.43		ug/L		125	70 - 130
Metolachlor	<0.049		1.93	2.05		ug/L		106	70 - 130
Molinate	<0.097		1.93	2.18		ug/L		113	70 - 130
Naphthalene	<0.29		1.93	2.01		ug/L		104	70 - 130
Parathion	<0.097		1.93	2.44		ug/L		126	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.93	2.37		ug/L		123	70 - 130
Phenanthrene	<0.039		1.93	1.92		ug/L		99	70 - 130
Propachlor	<0.049		1.93	2.09		ug/L		108	70 - 130
Pyrene	<0.049		1.93	2.17		ug/L		112	70 - 130
Simazine	<0.049		1.93	2.00		ug/L		103	70 - 130
Terbacil	<0.097		1.93	2.14		ug/L		111	70 - 130
Terbutylazine	<0.097		1.93	1.96		ug/L		101	70 - 130
Thiobencarb	<0.19		1.93	1.86		ug/L		96	70 - 130
trans-Nonachlor	<0.049		1.93	1.94		ug/L		100	70 - 130
Trifluralin	<0.097		1.93	2.19		ug/L		113	70 - 130

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90697-1 MS

Client Sample ID: AIEA WELLS P2 (260)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85639

Prep Batch: 85424

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
1-Methylnaphthalene	<0.097		1.93	2.04		ug/L		106	70 - 130
2-Methylnaphthalene	<0.097		1.93	2.08		ug/L		108	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
2-Nitro-m-xylene	100		70 - 130						
Perylene-d12	98		70 - 130						
Triphenylphosphate	101		70 - 130						

Lab Sample ID: 380-90697-1 MSD

Client Sample ID: AIEA WELLS P2 (260)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85639

Prep Batch: 85424

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
2,4'-DDD	<0.097		1.94	2.10		ug/L		109	70 - 130	1	20
2,4'-DDE	<0.097		1.94	2.20		ug/L		114	70 - 130	6	20
2,4'-DDT	<0.097		1.94	2.38		ug/L		123	70 - 130	8	20
2,4-Dinitrotoluene	<0.097	*+ ^+	1.94	2.47		ug/L		127	70 - 130	3	20
2,6-Dinitrotoluene	<0.097		1.94	2.42		ug/L		125	70 - 130	4	20
4,4'-DDD	<0.097		1.94	2.15		ug/L		111	70 - 130	6	20
4,4'-DDE	<0.097		1.94	2.03		ug/L		105	70 - 130	10	20
4,4'-DDT	<0.097	^3+	1.94	2.45		ug/L		127	70 - 130	10	20
Acenaphthene	<0.097		1.94	1.78		ug/L		92	70 - 130	1	20
Acenaphthylene	<0.097		1.94	1.78		ug/L		92	70 - 130	3	20
Acetochlor	<0.097		1.94	1.85		ug/L		95	70 - 130	3	20
Alachlor	<0.049		1.94	2.01		ug/L		104	70 - 130	3	20
alpha-BHC	<0.097		1.94	2.16		ug/L		111	70 - 130	0	20
alpha-Chlordane	<0.049		1.94	1.75		ug/L		90	70 - 130	4	20
Anthracene	<0.019	F1	1.94	1.09	F1	ug/L		56	70 - 130	1	20
Atrazine	<0.049		1.94	2.16		ug/L		111	70 - 130	8	20
Benz(a)anthracene	<0.049		1.94	1.96		ug/L		101	70 - 130	7	20
Benzo[a]pyrene	<0.019		1.94	1.70		ug/L		88	70 - 130	0	20
Benzo[b]fluoranthene	<0.019		1.94	2.16		ug/L		111	70 - 130	4	20
Benzo[g,h,i]perylene	<0.049		1.94	2.22		ug/L		114	70 - 130	3	20
Benzo[k]fluoranthene	<0.019		1.94	2.19		ug/L		113	70 - 130	1	20
beta-BHC	<0.097		1.94	2.23		ug/L		115	70 - 130	8	20
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.77		ug/L		91	70 - 130	16	20
Bromacil	<0.097	F1 *+ ^+	1.94	3.11	F1	ug/L		160	70 - 130	5	20
Butachlor	<0.049		1.94	2.05		ug/L		106	70 - 130	4	20
Butylbenzylphthalate	<0.49		1.94	2.10		ug/L		108	70 - 130	4	20
Chlorobenzilate	<0.097		1.94	2.25		ug/L		116	70 - 130	5	20
Chloroneb	<0.097		1.94	2.12		ug/L		110	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	1.94		ug/L		100	70 - 130	4	20
Chlorpyrifos	<0.049		1.94	2.27		ug/L		117	70 - 130	0	20
Chrysene	<0.019	^3+	1.94	2.12		ug/L		110	70 - 130	1	20
delta-BHC	<0.097		1.94	2.09		ug/L		108	70 - 130	3	20
Di(2-ethylhexyl)adipate	<0.58		1.94	2.04		ug/L		105	70 - 130	13	20
Dibenz(a,h)anthracene	<0.049		1.94	2.14		ug/L		110	70 - 130	3	20
Diclorvos (DDVP)	<0.049		1.94	2.20		ug/L		114	70 - 130	0	20

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90697-1 MSD

Client Sample ID: AIEA WELLS P2 (260)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85639

Prep Batch: 85424

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Dieldrin	<0.19		1.94	2.11		ug/L		109	70 - 130	0	20
Diethylphthalate	<0.49		1.94	1.97		ug/L		102	70 - 130	4	20
Dimethylphthalate	<0.49		1.94	1.97		ug/L		102	70 - 130	2	20
Di-n-butyl phthalate	<0.97		3.88	4.45		ug/L		112	70 - 130	4	20
Di-n-octyl phthalate	<0.097		1.94	1.87		ug/L		97	70 - 130	19	20
Endosulfan I (Alpha)	<0.097		1.94	2.05		ug/L		106	70 - 130	2	20
Endosulfan II (Beta)	<0.097		1.94	2.20		ug/L		113	70 - 130	2	20
Endosulfan sulfate	<0.097		1.94	2.36		ug/L		121	70 - 130	6	20
Endrin	<0.097		1.94	2.36		ug/L		121	70 - 130	4	20
Endrin aldehyde	<0.097		1.94	1.80		ug/L		93	60 - 130	2	20
EPTC	<0.097		1.94	2.14		ug/L		111	70 - 130	1	20
Fluoranthene	<0.097		1.94	2.22		ug/L		114	70 - 130	3	20
Fluorene	<0.049		1.94	1.98		ug/L		102	70 - 130	1	20
gamma-BHC (Lindane)	<0.039		1.94	2.22		ug/L		114	70 - 130	2	20
gamma-Chlordane	<0.049		1.94	1.87		ug/L		96	70 - 130	7	20
Heptachlor	<0.039		1.94	2.18		ug/L		112	70 - 130	2	20
Heptachlor epoxide (isomer B)	<0.049		1.94	1.96		ug/L		101	70 - 130	5	20
Hexachlorobenzene	<0.049		1.94	2.13		ug/L		110	70 - 130	3	20
Hexachlorocyclopentadiene	<0.049		1.94	2.17		ug/L		112	70 - 130	2	20
Indeno[1,2,3-cd]pyrene	<0.049		1.94	2.16		ug/L		111	70 - 130	2	20
Isophorone	<0.49		1.94	1.74		ug/L		90	70 - 130	2	20
Malathion	<0.097		1.94	2.06		ug/L		106	70 - 130	2	20
Methoxychlor	<0.097		1.94	2.37		ug/L		122	70 - 130	2	20
Metolachlor	<0.049		1.94	2.11		ug/L		109	70 - 130	3	20
Molinate	<0.097		1.94	2.13		ug/L		110	70 - 130	2	20
Naphthalene	<0.29		1.94	1.93		ug/L		100	70 - 130	4	20
Parathion	<0.097		1.94	2.50		ug/L		129	70 - 130	2	20
Pendimethalin (Penoxaline)	<0.097		1.94	2.46		ug/L		127	70 - 130	4	20
Phenanthrene	<0.039		1.94	1.89		ug/L		97	70 - 130	2	20
Propachlor	<0.049		1.94	2.14		ug/L		110	70 - 130	3	20
Pyrene	<0.049		1.94	2.22		ug/L		115	70 - 130	2	20
Simazine	<0.049		1.94	2.16		ug/L		111	70 - 130	8	20
Terbacil	<0.097		1.94	2.25		ug/L		116	70 - 130	5	20
Terbutylazine	<0.097		1.94	2.14		ug/L		110	70 - 130	9	20
Thiobencarb	<0.19		1.94	1.88		ug/L		97	70 - 130	1	20
trans-Nonachlor	<0.049		1.94	2.09		ug/L		108	70 - 130	7	20
Trifluralin	<0.097		1.94	2.24		ug/L		116	70 - 130	2	20
1-Methylnaphthalene	<0.097		1.94	2.01		ug/L		103	70 - 130	2	20
2-Methylnaphthalene	<0.097		1.94	2.04		ug/L		105	70 - 130	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	111		70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MBL 380-85451/4-A
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85451

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		04/11/24 16:00	04/11/24 20:12	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		04/11/24 16:00	04/11/24 20:12	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		04/11/24 16:00	04/11/24 20:12	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	102		60 - 140			04/11/24 16:00	04/11/24 20:12	1

Lab Sample ID: LCS 380-85451/29-A
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.220		ug/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	0.200	0.201		ug/L		101	70 - 130
1,2-Dibromoethane	0.200	0.209		ug/L		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dibromopropane (Surr)	106		60 - 140				

Lab Sample ID: MRL 380-85451/2-A
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0200	0.0207		ug/L		104	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	101		60 - 140				

Lab Sample ID: MRL 380-85451/3-A
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0489		ug/L		98	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.0102		ug/L		102	60 - 140
1,2-Dibromoethane	0.0100	0.00849	J	ug/L		85	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	102		60 - 140				

Lab Sample ID: 380-90796-BQ-1-B MS
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.28	1.28		ug/L		100	65 - 135

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90796-BQ-1-B MS
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
1,2-Dibromo-3-Chloropropane	<0.010		0.255	0.257		ug/L		101	65 - 135
1,2-Dibromoethane	<0.010		0.255	0.256		ug/L		100	65 - 135
Surrogate	MS MS		Limits						
	%Recovery	Qualifier							
1,2-Dibromopropane (Surr)	101		60 - 140						

Lab Sample ID: 380-90796-BQ-1-C DU
Matrix: Water
Analysis Batch: 85666

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 85451

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
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
Surrogate	DU DU		Limits					
	%Recovery	Qualifier						
1,2-Dibromopropane (Surr)	99		60 - 140					

Lab Sample ID: MBL 380-85697/4-A
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85697

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		04/13/24 14:00	04/13/24 22:45	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		04/13/24 14:00	04/13/24 22:45	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		04/13/24 14:00	04/13/24 22:45	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dibromopropane (Surr)	98		60 - 140			04/13/24 14:00	04/13/24 22:45	1

Lab Sample ID: LCS 380-85697/29-A
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85697

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				
1,2,3-Trichloropropane	0.200	0.223		ug/L		111	70 - 130
1,2-Dibromo-3-Chloropropane	0.200	0.206		ug/L		103	70 - 130
1,2-Dibromoethane	0.200	0.209		ug/L		105	70 - 130
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
1,2-Dibromopropane (Surr)	100		60 - 140				

Lab Sample ID: MRL 380-85697/2-A
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85697

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec
		Result	Qualifier				
1,2,3-Trichloropropane	0.0200	0.0153	J	ug/L		77	60 - 140

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QC Sample Results

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

Job ID: 380-90697-1

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

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dibromopropane (Surr)	102		60 - 140

Lab Sample ID: MRL 380-85697/3-A
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85697

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0480		ug/L		96	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.00970	J	ug/L		97	60 - 140
1,2-Dibromoethane	0.0100	0.00981	J	ug/L		98	60 - 140

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dibromopropane (Surr)	99		60 - 140

Lab Sample ID: 380-90805-BU-1-B MS
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	<0.020		1.26	1.29		ug/L		102	65 - 135
1,2-Dibromo-3-Chloropropane	<0.010		0.252	0.261		ug/L		103	65 - 135
1,2-Dibromoethane	<0.010		0.252	0.257		ug/L		102	65 - 135

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

Lab Sample ID: 380-90805-BU-1-C DU
Matrix: Water
Analysis Batch: 85944

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 85697

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	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

Surrogate	DU %Recovery	DU Qualifier	Limits
1,2-Dibromopropane (Surr)	104		60 - 140

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 380-85586/3-A
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85586

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1
Dieldrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1
Toxaphene	<0.50		0.50	ug/L		04/12/24 13:40	04/13/24 02:52	1
Alachlor	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
Endrin	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MB 380-85586/3-A
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 85586

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Heptachlor	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1
Heptachlor epoxide	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1
gamma-BHC (Lindane)	<0.010		0.010	ug/L		04/12/24 13:40	04/13/24 02:52	1
Methoxychlor	<0.050		0.050	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1016	<0.070		0.070	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1221	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1232	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1242	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1248	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1254	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1
PCB-1260	<0.070		0.070	ug/L		04/12/24 13:40	04/13/24 02:52	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		04/12/24 13:40	04/13/24 02:52	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	104		70 - 130	04/12/24 13:40	04/13/24 02:52	1
Tetrachloro-m-xylene	102		70 - 130	04/12/24 13:40	04/13/24 02:52	1

Lab Sample ID: MRL 380-85586/1-A
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Aldrin	0.0100	0.0145		ug/L		145	50 - 150
Dieldrin	0.0100	0.0127		ug/L		127	50 - 150
Alachlor	0.100	0.0959	J	ug/L		96	50 - 150
Endrin	0.0100	0.00744	J	ug/L		74	50 - 150
Heptachlor	0.0100	0.00961	J	ug/L		96	50 - 150
Heptachlor epoxide	0.0100	0.00629	J	ug/L		63	50 - 150
gamma-BHC (Lindane)	0.0100	0.0133		ug/L		133	50 - 150
Methoxychlor	0.0500	0.0384	J	ug/L		77	50 - 150

Surrogate	MRL	MRL	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	110		70 - 130
Tetrachloro-m-xylene	105		70 - 130

Lab Sample ID: MRL 380-85586/2-A
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chlordane (n.o.s.)	0.100	0.122		ug/L		122	50 - 150

Surrogate	MRL	MRL	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	105		70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90963-F-1-A MS
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Aldrin	<0.010	^3+	0.0992	0.109		ug/L		110		65 - 135
Dieldrin	<0.010		0.0992	0.104		ug/L		105		65 - 135
Alachlor	<0.10		0.992	1.03		ug/L		104		65 - 135
Endrin	<0.010		0.0992	0.0896		ug/L		90		65 - 135
Heptachlor	<0.010		0.0992	0.0934		ug/L		94		65 - 135
Heptachlor epoxide	<0.010		0.0992	0.101		ug/L		102		65 - 135
gamma-BHC (Lindane)	<0.010		0.0992	0.0993		ug/L		100		65 - 135
Methoxychlor	<0.050		0.496	0.415		ug/L		84		65 - 135

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	102		70 - 130
Tetrachloro-m-xylene	101		70 - 130

Lab Sample ID: 380-90963-G-1-A MS
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Chlordane (n.o.s.)	<0.10		0.501	0.539		ug/L		108		65 - 135

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	107		70 - 130

Lab Sample ID: 380-90805-BR-1-A MS
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Aldrin	<0.010	^3+	0.0198	0.0199		ug/L		101		65 - 135
Dieldrin	<0.010		0.0198	0.0225		ug/L		113		65 - 135
Alachlor	<0.10		0.198	0.207		ug/L		105		65 - 135
Endrin	<0.010		0.0198	0.0178		ug/L		90		65 - 135
Heptachlor	<0.010		0.0198	0.0199		ug/L		100		65 - 135
Heptachlor epoxide	<0.010		0.0198	0.0178		ug/L		90		65 - 135
gamma-BHC (Lindane)	<0.010		0.0198	0.0206		ug/L		104		65 - 135
Methoxychlor	<0.050		0.0992	0.0861		ug/L		87		65 - 135

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	107		70 - 130
Tetrachloro-m-xylene	105		70 - 130

Lab Sample ID: 380-90805-BS-1-A MS
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85586

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Chlordane (n.o.s.)	<0.10		0.497	0.614		ug/L		124		65 - 135

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90805-BS-1-A MS
Matrix: Water
Analysis Batch: 85992

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 85586

Surrogate	%Recovery	MS MS Qualifier	Limits
Tetrachloro-m-xylene	126		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-85306/4
Matrix: Water
Analysis Batch: 85306

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

Analyte	MB MB Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.050	0.050	mg/L			04/10/24 11:55	1
Nitrite as N	<0.050	0.050	mg/L			04/10/24 11:55	1

Lab Sample ID: LCS 380-85306/7
Matrix: Water
Analysis Batch: 85306

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

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.50	2.45	mg/L		98	90 - 110
Nitrite as N	1.00	0.983	mg/L		98	90 - 110

Lab Sample ID: LCSD 380-85306/8
Matrix: Water
Analysis Batch: 85306

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

Analyte	Spike Added	LCSD LCSD Result Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	2.50	2.44	mg/L		98	90 - 110	1	20
Nitrite as N	1.00	0.979	mg/L		98	90 - 110	0	20

Lab Sample ID: MRL 380-85306/5
Matrix: Water
Analysis Batch: 85306

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

Analyte	Spike Added	MRL MRL Result Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.0125	0.0132 J	mg/L		106	50 - 150
Nitrite as N	0.0125	0.0124 J	mg/L		99	50 - 150

Lab Sample ID: MRL 380-85306/6
Matrix: Water
Analysis Batch: 85306

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

Analyte	Spike Added	MRL MRL Result Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.0500	0.0474 J	mg/L		95	50 - 150
Nitrite as N	0.0500	0.0505	mg/L		101	50 - 150

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85306

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS Result Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.85		1.25	2.09	mg/L		100	80 - 120

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QC Sample Results

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

Job ID: 380-90697-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85306

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	<0.050	F1	0.500	0.349	F1	mg/L		70	80 - 120

Lab Sample ID: 380-90697-1 MSD
Matrix: Water
Analysis Batch: 85306

Client Sample ID: AIEA WELLS P2 (260)
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	0.85		1.25	2.10		mg/L		100	80 - 120	0	20
Nitrite as N	<0.050	F1	0.500	0.352	F1	mg/L		70	80 - 120	1	20

Lab Sample ID: MB 380-85307/4
Matrix: Water
Analysis Batch: 85307

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.25		0.25	mg/L			04/10/24 11:55	1

Lab Sample ID: LCS 380-85307/7
Matrix: Water
Analysis Batch: 85307

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	50.0	50.4		mg/L		101	90 - 110

Lab Sample ID: LCSD 380-85307/8
Matrix: Water
Analysis Batch: 85307

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
Sulfate	50.0	50.3		mg/L		101	90 - 110	0	20

Lab Sample ID: MRL 380-85307/5
Matrix: Water
Analysis Batch: 85307

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	0.250	0.245	J	mg/L		98	50 - 150

Lab Sample ID: MRL 380-85307/6
Matrix: Water
Analysis Batch: 85307

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	0.999	0.955		mg/L		96	50 - 150

QC Sample Results

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

Job ID: 380-90697-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85307

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	16		25.0	42.1		mg/L		103	80 - 120

Lab Sample ID: 380-90697-1 MSD
Matrix: Water
Analysis Batch: 85307

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	16		25.0	42.2		mg/L		103	80 - 120	0	20

Lab Sample ID: MB 380-85559/4
Matrix: Water
Analysis Batch: 85559

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			04/11/24 14:12	1
Sulfate	<0.25		0.25	mg/L			04/11/24 14:12	1

Lab Sample ID: LCS 380-85559/7
Matrix: Water
Analysis Batch: 85559

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	25.1		mg/L		101	90 - 110
Sulfate	50.0	50.1		mg/L		100	90 - 110

Lab Sample ID: LCSD 380-85559/8
Matrix: Water
Analysis Batch: 85559

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	24.9		mg/L		99	90 - 110	1	20
Sulfate	50.0	49.9		mg/L		100	90 - 110	0	20

Lab Sample ID: MRL 380-85559/5
Matrix: Water
Analysis Batch: 85559

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	0.141	J	mg/L		113	50 - 150
Sulfate	0.250	0.237	J	mg/L		95	50 - 150

Lab Sample ID: MRL 380-85559/6
Matrix: Water
Analysis Batch: 85559

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	0.456	J	mg/L		91	50 - 150
Sulfate	1.00	0.931		mg/L		93	50 - 150

QC Sample Results

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

Job ID: 380-90697-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-91001-E-1 MS
Matrix: Water
Analysis Batch: 85559

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.50		12.5	12.3		mg/L		98	80 - 120
Sulfate	<0.25		25.0	25.4		mg/L		102	80 - 120

Lab Sample ID: 380-91001-E-1 MSD
Matrix: Water
Analysis Batch: 85559

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.50		12.5	12.2		mg/L		98	80 - 120	1	20
Sulfate	<0.25		25.0	25.2		mg/L		101	80 - 120	1	20

Lab Sample ID: MB 380-85560/4
Matrix: Water
Analysis Batch: 85560

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			04/11/24 14:12	1
Nitrite as N	<0.050		0.050	mg/L			04/11/24 14:12	1

Lab Sample ID: LCS 380-85560/7
Matrix: Water
Analysis Batch: 85560

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	2.40		mg/L		96	90 - 110
Nitrite as N	1.00	0.977		mg/L		98	90 - 110

Lab Sample ID: LCSD 380-85560/8
Matrix: Water
Analysis Batch: 85560

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	2.38		mg/L		95	90 - 110	1	20
Nitrite as N	1.00	0.972		mg/L		97	90 - 110	0	20

Lab Sample ID: MRL 380-85560/5
Matrix: Water
Analysis Batch: 85560

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	0.0114	J	mg/L		91	50 - 150
Nitrite as N	0.0125	0.0114	J	mg/L		91	50 - 150

Lab Sample ID: MRL 380-85560/6
Matrix: Water
Analysis Batch: 85560

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	0.0436	J	mg/L		87	50 - 150
Nitrite as N	0.0500	0.0475	J	mg/L		95	50 - 150

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QC Sample Results

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

Job ID: 380-90697-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 380-91001-E-1 MS
Matrix: Water
Analysis Batch: 85560

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	1.19		mg/L		95	80 - 120
Nitrite as N	<0.050		0.500	0.497		mg/L		99	80 - 120

Lab Sample ID: 380-91001-E-1 MSD
Matrix: Water
Analysis Batch: 85560

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	1.18		mg/L		95	80 - 120	1	20
Nitrite as N	<0.050		0.500	0.493		mg/L		99	80 - 120	1	20

Lab Sample ID: MB 380-85757/5
Matrix: Water
Analysis Batch: 85757

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			04/12/24 17:55	1

Lab Sample ID: LCS 380-85757/6
Matrix: Water
Analysis Batch: 85757

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

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

Lab Sample ID: LCSD 380-85757/7
Matrix: Water
Analysis Batch: 85757

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	101		ug/L		101	90 - 110	1	10

Lab Sample ID: MRL 380-85757/4
Matrix: Water
Analysis Batch: 85757

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	5.18		ug/L		104	75 - 125

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85757

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	360		50.0	407	E 4	ug/L		95	80 - 120

QC Sample Results

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

Job ID: 380-90697-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-90697-1 MSD
Matrix: Water
Analysis Batch: 85757

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	360		50.0	407	E 4	ug/L		95	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MBL 380-85696/87
Matrix: Water
Analysis Batch: 85696

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

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.070		1.0	mg/L			04/11/24 18:17	1
Magnesium	<0.0099		0.10	mg/L			04/11/24 18:17	1
Potassium	<0.12		1.0	mg/L			04/11/24 18:17	1
Sodium	<0.41		1.0	mg/L			04/11/24 18:17	1

Lab Sample ID: LCS 380-85696/89
Matrix: Water
Analysis Batch: 85696

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50.0	50.8		mg/L		102	85 - 115
Magnesium	20.0	20.0		mg/L		100	85 - 115
Potassium	20.0	21.6		mg/L		108	85 - 115
Sodium	50.0	52.6		mg/L		105	85 - 115

Lab Sample ID: LCSD 380-85696/90
Matrix: Water
Analysis Batch: 85696

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	50.0	49.7		mg/L		99	85 - 115	2	20
Magnesium	20.0	19.6		mg/L		98	85 - 115	2	20
Potassium	20.0	21.1		mg/L		105	85 - 115	2	20
Sodium	50.0	51.4		mg/L		103	85 - 115	2	20

Lab Sample ID: LLCS 380-85696/88
Matrix: Water
Analysis Batch: 85696

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	0.946	J	mg/L		95	50 - 150
Magnesium	0.100	0.0923	J	mg/L		92	50 - 150
Potassium	1.00	0.722	J	mg/L		72	50 - 150
Sodium	1.00	0.534	J	mg/L		53	50 - 150

Lab Sample ID: 380-90661-M-6 MS
Matrix: Water
Analysis Batch: 85696

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	17		20.0	35.8		mg/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90661-M-6 MS
Matrix: Water
Analysis Batch: 85696

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
Potassium	4.2		20.0	26.5		mg/L		112	70 - 130
Sodium	76		50.0	122		mg/L		93	70 - 130

Lab Sample ID: 380-90661-M-6 MSD
Matrix: Water
Analysis Batch: 85696

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	44		50.0	87.0		mg/L		85	70 - 130	4	20
Magnesium	17		20.0	34.3		mg/L		87	70 - 130	4	20
Potassium	4.2		20.0	25.0		mg/L		104	70 - 130	6	20
Sodium	76		50.0	118		mg/L		85	70 - 130	3	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MBL 380-85716/60
Matrix: Water
Analysis Batch: 85716

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			04/11/24 23:03	1
Arsenic	<0.49		1.0	ug/L			04/11/24 23:03	1
Beryllium	<0.18		1.0	ug/L			04/11/24 23:03	1
Cadmium	<0.081		0.50	ug/L			04/11/24 23:03	1
Chromium	<0.80		1.0	ug/L			04/11/24 23:03	1
Copper	<0.27		2.0	ug/L			04/11/24 23:03	1
Lead	<0.29		0.50	ug/L			04/11/24 23:03	1
Nickel	<0.38		5.0	ug/L			04/11/24 23:03	1
Selenium	<1.0		5.0	ug/L			04/11/24 23:03	1
Silver	<0.40		0.50	ug/L			04/11/24 23:03	1
Thallium	<0.32		1.0	ug/L			04/11/24 23:03	1
Zinc	<4.3		20	ug/L			04/11/24 23:03	1

Lab Sample ID: LCS 380-85716/62
Matrix: Water
Analysis Batch: 85716

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	50.0		ug/L		100	85 - 115
Arsenic	50.0	51.8		ug/L		104	85 - 115
Beryllium	25.0	23.0		ug/L		92	85 - 115
Cadmium	25.0	25.3		ug/L		101	85 - 115
Chromium	50.0	51.4		ug/L		103	85 - 115
Copper	50.0	52.8		ug/L		106	85 - 115
Lead	50.0	50.8		ug/L		102	85 - 115
Nickel	50.0	52.3		ug/L		105	85 - 115
Selenium	50.0	50.6		ug/L		101	85 - 115
Silver	25.0	24.4		ug/L		97	85 - 115
Thallium	50.0	51.0		ug/L		102	85 - 115
Zinc	50.0	51.9		ug/L		104	85 - 115

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QC Sample Results

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

Job ID: 380-90697-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: LCSD 380-85716/63
Matrix: Water
Analysis Batch: 85716

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	48.4		ug/L		97	85 - 115	3	20
Arsenic	50.0	51.8		ug/L		104	85 - 115	0	20
Beryllium	25.0	23.3		ug/L		93	85 - 115	1	20
Cadmium	25.0	24.3		ug/L		97	85 - 115	4	20
Chromium	50.0	52.8		ug/L		106	85 - 115	3	20
Copper	50.0	52.4		ug/L		105	85 - 115	1	20
Lead	50.0	50.0		ug/L		100	85 - 115	2	20
Nickel	50.0	54.1		ug/L		108	85 - 115	3	20
Selenium	50.0	50.4		ug/L		101	85 - 115	0	20
Silver	25.0	23.7		ug/L		95	85 - 115	3	20
Thallium	50.0	49.4		ug/L		99	85 - 115	3	20
Zinc	50.0	51.6		ug/L		103	85 - 115	1	20

Lab Sample ID: LLCS 380-85716/61
Matrix: Water
Analysis Batch: 85716

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	0.944	J	ug/L		94	50 - 150
Arsenic	1.00	1.01		ug/L		101	50 - 150
Beryllium	1.00	0.896	J	ug/L		90	50 - 150
Cadmium	0.500	0.460	J	ug/L		92	50 - 150
Chromium	1.00	1.15		ug/L		115	50 - 150
Copper	2.00	2.04		ug/L		102	50 - 150
Lead	0.500	0.450	J	ug/L		90	50 - 150
Nickel	5.00	5.08		ug/L		102	50 - 150
Selenium	5.00	5.09		ug/L		102	50 - 150
Silver	0.500	<0.40		ug/L		73	50 - 150
Thallium	1.00	1.00		ug/L		100	50 - 150
Zinc	20.0	19.9	J	ug/L		100	50 - 150

Lab Sample ID: 380-90696-A-2 MS
Matrix: Water
Analysis Batch: 85716

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		50.0	50.7		ug/L		101	70 - 130
Arsenic	<1.0		50.0	53.7		ug/L		107	70 - 130
Beryllium	<1.0		25.0	25.6		ug/L		103	70 - 130
Cadmium	<0.50		25.0	26.0		ug/L		104	70 - 130
Chromium	<1.0		50.0	51.4		ug/L		103	70 - 130
Copper	<2.0		50.0	52.8		ug/L		104	70 - 130
Lead	<0.50		50.0	50.9		ug/L		102	70 - 130
Nickel	<5.0		50.0	52.0		ug/L		104	70 - 130
Selenium	<5.0		50.0	56.2		ug/L		112	70 - 130
Silver	<0.50		25.0	23.1		ug/L		92	70 - 130
Thallium	<1.0		50.0	51.0		ug/L		102	70 - 130
Zinc	<20		50.0	57.5		ug/L		115	70 - 130

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: 380-90696-A-2 MSD
Matrix: Water
Analysis Batch: 85716

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<1.0		50.0	50.7		ug/L		101	70 - 130	0	20
Arsenic	<1.0		50.0	56.2		ug/L		112	70 - 130	5	20
Beryllium	<1.0		25.0	25.3		ug/L		101	70 - 130	1	20
Cadmium	<0.50		25.0	26.3		ug/L		105	70 - 130	1	20
Chromium	<1.0		50.0	54.1		ug/L		108	70 - 130	5	20
Copper	<2.0		50.0	53.6		ug/L		106	70 - 130	1	20
Lead	<0.50		50.0	51.7		ug/L		103	70 - 130	1	20
Nickel	<5.0		50.0	52.0		ug/L		104	70 - 130	0	20
Selenium	<5.0		50.0	57.2		ug/L		114	70 - 130	2	20
Silver	<0.50		25.0	23.8		ug/L		95	70 - 130	3	20
Thallium	<1.0		50.0	51.5		ug/L		103	70 - 130	1	20
Zinc	<20		50.0	59.0		ug/L		118	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 810-95643/1-A
Matrix: Water
Analysis Batch: 95747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95643

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10	ug/L		04/16/24 11:07	04/16/24 16:12	1

Lab Sample ID: LCS 810-95643/3-A
Matrix: Water
Analysis Batch: 95747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.04		ug/L		104	85 - 115

Lab Sample ID: LLCS 810-95643/2-A
Matrix: Water
Analysis Batch: 95747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95643

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.100	0.0969	J	ug/L		97	50 - 150

Lab Sample ID: 180-172180-J-3-B MS
Matrix: Water
Analysis Batch: 95747

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 95643

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

Lab Sample ID: 180-172180-J-3-C MSD
Matrix: Water
Analysis Batch: 95747

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 95643

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.10		1.00	1.06		ug/L		106	70 - 130	1	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-85878/1
Matrix: Water
Analysis Batch: 85878

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			04/12/24 14:23	1
Bicarbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			04/12/24 14:23	1
Carbonate Alkalinity as CaCO3	<2.0		2.0	mg/L			04/12/24 14:23	1

Lab Sample ID: LCS 380-85878/3
Matrix: Water
Analysis Batch: 85878

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	97.6		mg/L		98	90 - 110

Lab Sample ID: LCSD 380-85878/18
Matrix: Water
Analysis Batch: 85878

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	98.0		mg/L		98	90 - 110	0	20

Lab Sample ID: LLCS 380-85878/4
Matrix: Water
Analysis Batch: 85878

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	19.2		mg/L		96	90 - 110

Lab Sample ID: MRL 380-85878/2
Matrix: Water
Analysis Batch: 85878

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	2.00	2.07		mg/L		104	50 - 150

Lab Sample ID: 380-90768-A-4 MS
Matrix: Water
Analysis Batch: 85878

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	160	F1	100	187	F1	mg/L		31	80 - 120

Lab Sample ID: 380-90768-A-4 MSD
Matrix: Water
Analysis Batch: 85878

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	160	F1	100	178	F1	mg/L		22	80 - 120	5	20

QC Sample Results

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

Job ID: 380-90697-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 380-90768-A-4 DU
Matrix: Water
Analysis Batch: 85878

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	160	F1	155		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	160		155		mg/L		1	20
Carbonate Alkalinity as CaCO3	<2.0		<2.0		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-85881/2
Matrix: Water
Analysis Batch: 85881

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			04/12/24 14:23	1

Lab Sample ID: LCS 380-85881/4
Matrix: Water
Analysis Batch: 85881

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	987		umhos/cm		99	90 - 110

Lab Sample ID: LCSD 380-85881/16
Matrix: Water
Analysis Batch: 85881

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	983		umhos/cm		98	90 - 110	0	10

Lab Sample ID: MRL 380-85881/3
Matrix: Water
Analysis Batch: 85881

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	2.00		umhos/cm		100	50 - 150

Lab Sample ID: 380-90768-A-4 DU
Matrix: Water
Analysis Batch: 85881

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	570		572		umhos/cm		0.3	20

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

Lab Sample ID: MB 380-85344/1
Matrix: Water
Analysis Batch: 85344

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			04/10/24 18:24	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: HLCS 380-85344/5
Matrix: Water
Analysis Batch: 85344

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	694		mg/L		99	80 - 114

Lab Sample ID: LCS 380-85344/4
Matrix: Water
Analysis Batch: 85344

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	180		mg/L		103	80 - 114

Lab Sample ID: MRL 380-85344/2
Matrix: Water
Analysis Batch: 85344

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	11.0		mg/L		110	50 - 150

Lab Sample ID: MRL 380-85344/3
Matrix: Water
Analysis Batch: 85344

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	9.00	J	mg/L		90	50 - 150

Lab Sample ID: 380-90652-F-1 DU
Matrix: Water
Analysis Batch: 85344

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	250		238		mg/L		5	10

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-85876/40
Matrix: Water
Analysis Batch: 85876

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			04/12/24 14:46	1

Lab Sample ID: MB 380-85876/6
Matrix: Water
Analysis Batch: 85876

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			04/12/24 12:06	1

QC Sample Results

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

Job ID: 380-90697-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 380-85876/42
Matrix: Water
Analysis Batch: 85876

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

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

Lab Sample ID: LCSD 380-85876/43
Matrix: Water
Analysis Batch: 85876

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	1.05		mg/L		105	90 - 110	0	10

Lab Sample ID: MRL 380-85876/41
Matrix: Water
Analysis Batch: 85876

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	0.0555		mg/L		111	50 - 150

Lab Sample ID: MRL 380-85876/7
Matrix: Water
Analysis Batch: 85876

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	0.0561		mg/L		112	50 - 150

Lab Sample ID: 380-90768-A-3 MS
Matrix: Water
Analysis Batch: 85876

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	0.23		1.00	1.30		mg/L		107	80 - 120

Lab Sample ID: 380-90768-A-3 MSD
Matrix: Water
Analysis Batch: 85876

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	0.23		1.00	1.30		mg/L		108	80 - 120	0	20

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-85883/4
Matrix: Water
Analysis Batch: 85883

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.7			SU			04/12/24 14:23	1

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: LCS 380-85883/5
Matrix: Water
Analysis Batch: 85883

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		101	98 - 102

Lab Sample ID: LCSD 380-85883/17
Matrix: Water
Analysis Batch: 85883

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		101	98 - 102	0	2

Lab Sample ID: 380-90768-A-4 DU
Matrix: Water
Analysis Batch: 85883

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.1		8.0		SU		0.6	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MBL 380-85430/1
Matrix: Water
Analysis Batch: 85430

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			04/11/24 09:33	1

Lab Sample ID: LCS 380-85430/4
Matrix: Water
Analysis Batch: 85430

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	0.244		mg/L		98	90 - 110

Lab Sample ID: LCSD 380-85430/25
Matrix: Water
Analysis Batch: 85430

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	0.263		mg/L		105	90 - 110	8	20

Lab Sample ID: MRL 380-85430/17
Matrix: Water
Analysis Batch: 85430

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	0.0335	J	mg/L		67	50 - 150

QC Sample Results

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

Job ID: 380-90697-1

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

Lab Sample ID: MRL 380-85430/2
Matrix: Water
Analysis Batch: 85430

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	0.0355	J	mg/L		71	50 - 150

Lab Sample ID: 380-90697-1 MS
Matrix: Water
Analysis Batch: 85430

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<0.050		0.250	0.230		mg/L		92	80 - 120

Lab Sample ID: 380-90697-1 MSD
Matrix: Water
Analysis Batch: 85430

Client Sample ID: AIEA WELLS P2 (260)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.050		0.250	0.237		mg/L		95	80 - 120	3	20

QC Association Summary

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

Job ID: 380-90697-1

GC/MS VOA

Analysis Batch: 85520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	524.2	
380-90697-2	TB: AIEA WELLS P2 (260)	Total/NA	Water	524.2	
MB 380-85520/22	Method Blank	Total/NA	Water	524.2	
LCS 380-85520/19	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-85520/20	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-85520/21	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 85829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 380-85829/8	Method Blank	Total/NA	Water	524.2	
LCS 380-85829/5	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-85829/6	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-85829/3	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-85829/4	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 85832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	524.2	
380-90697-2	TB: AIEA WELLS P2 (260)	Total/NA	Water	524.2	
MB 380-85832/5	Method Blank	Total/NA	Water	524.2	
LCS 380-85832/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-85832/4	Lab Control Sample Dup	Total/NA	Water	524.2	

Analysis Batch: 86244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	524.2	
380-90697-2	TB: AIEA WELLS P2 (260)	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 85424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	525.2	
MB 380-85424/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-85424/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-85424/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-85424/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	525.2	
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	525.2	

Analysis Batch: 85639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	525.2	85424
MB 380-85424/21-A	Method Blank	Total/NA	Water	525.2	85424
LCS 380-85424/23-A	Lab Control Sample	Total/NA	Water	525.2	85424
LCSD 380-85424/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	85424
MRL 380-85424/22-A	Lab Control Sample	Total/NA	Water	525.2	85424
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	525.2	85424
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	525.2	85424

QC Association Summary

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

Job ID: 380-90697-1

GC Semi VOA

Prep Batch: 85451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	504.1	
MBL 380-85451/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-85451/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-85451/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-85451/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-90796-BQ-1-B MS	Matrix Spike	Total/NA	Water	504.1	
380-90796-BQ-1-C DU	Duplicate	Total/NA	Water	504.1	

Prep Batch: 85586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	505	
MB 380-85586/3-A	Method Blank	Total/NA	Water	505	
MRL 380-85586/1-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-85586/2-A	Lab Control Sample	Total/NA	Water	505	
380-90963-F-1-A MS	Matrix Spike	Total/NA	Water	505	
380-90963-G-1-A MS	Matrix Spike	Total/NA	Water	505	
380-90805-BR-1-A MS	Matrix Spike	Total/NA	Water	505	
380-90805-BS-1-A MS	Matrix Spike	Total/NA	Water	505	

Analysis Batch: 85666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	504.1	85451
MBL 380-85451/4-A	Method Blank	Total/NA	Water	504.1	85451
LCS 380-85451/29-A	Lab Control Sample	Total/NA	Water	504.1	85451
MRL 380-85451/2-A	Lab Control Sample	Total/NA	Water	504.1	85451
MRL 380-85451/3-A	Lab Control Sample	Total/NA	Water	504.1	85451
380-90796-BQ-1-B MS	Matrix Spike	Total/NA	Water	504.1	85451
380-90796-BQ-1-C DU	Duplicate	Total/NA	Water	504.1	85451

Prep Batch: 85697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-2	TB: AIEA WELLS P2 (260)	Total/NA	Water	504.1	
MBL 380-85697/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-85697/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-85697/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-85697/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-90805-BU-1-B MS	Matrix Spike	Total/NA	Water	504.1	
380-90805-BU-1-C DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 85944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-2	TB: AIEA WELLS P2 (260)	Total/NA	Water	504.1	85697
MBL 380-85697/4-A	Method Blank	Total/NA	Water	504.1	85697
LCS 380-85697/29-A	Lab Control Sample	Total/NA	Water	504.1	85697
MRL 380-85697/2-A	Lab Control Sample	Total/NA	Water	504.1	85697
MRL 380-85697/3-A	Lab Control Sample	Total/NA	Water	504.1	85697
380-90805-BU-1-B MS	Matrix Spike	Total/NA	Water	504.1	85697
380-90805-BU-1-C DU	Duplicate	Total/NA	Water	504.1	85697

QC Association Summary

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

Job ID: 380-90697-1

GC Semi VOA

Analysis Batch: 85992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	505	85586
MB 380-85586/3-A	Method Blank	Total/NA	Water	505	85586
MRL 380-85586/1-A	Lab Control Sample	Total/NA	Water	505	85586
MRL 380-85586/2-A	Lab Control Sample	Total/NA	Water	505	85586
380-90963-F-1-A MS	Matrix Spike	Total/NA	Water	505	85586
380-90963-G-1-A MS	Matrix Spike	Total/NA	Water	505	85586
380-90805-BR-1-A MS	Matrix Spike	Total/NA	Water	505	85586
380-90805-BS-1-A MS	Matrix Spike	Total/NA	Water	505	85586

HPLC/IC

Analysis Batch: 85306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
MB 380-85306/4	Method Blank	Total/NA	Water	300.0	
LCS 380-85306/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-85306/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-85306/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-85306/6	Lab Control Sample	Total/NA	Water	300.0	
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	300.0	

Analysis Batch: 85307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
MB 380-85307/4	Method Blank	Total/NA	Water	300.0	
LCS 380-85307/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-85307/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-85307/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-85307/6	Lab Control Sample	Total/NA	Water	300.0	
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	300.0	

Analysis Batch: 85559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
MB 380-85559/4	Method Blank	Total/NA	Water	300.0	
LCS 380-85559/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-85559/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-85559/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-85559/6	Lab Control Sample	Total/NA	Water	300.0	
380-91001-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-91001-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 85560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 380-85560/4	Method Blank	Total/NA	Water	300.0	
LCS 380-85560/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-85560/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-85560/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-85560/6	Lab Control Sample	Total/NA	Water	300.0	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-90697-1

HPLC/IC (Continued)

Analysis Batch: 85560 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-91001-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-91001-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 85757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
MB 380-85757/5	Method Blank	Total/NA	Water	300.0	
LCS 380-85757/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-85757/7	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-85757/4	Lab Control Sample	Total/NA	Water	300.0	
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	300.0	
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	300.0	

Metals

Analysis Batch: 85696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	200.7 Rev 4.4	
MBL 380-85696/87	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-85696/89	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-85696/90	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-85696/88	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-90661-M-6 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-90661-M-6 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 85716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	200.8	
MBL 380-85716/60	Method Blank	Total/NA	Water	200.8	
LCS 380-85716/62	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-85716/63	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-85716/61	Lab Control Sample	Total/NA	Water	200.8	
380-90696-A-2 MS	Matrix Spike	Total/NA	Water	200.8	
380-90696-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 95643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	245.1	
MB 810-95643/1-A	Method Blank	Total/NA	Water	245.1	
LCS 810-95643/3-A	Lab Control Sample	Total/NA	Water	245.1	
LLCS 810-95643/2-A	Lab Control Sample	Total/NA	Water	245.1	
180-172180-J-3-B MS	Matrix Spike	Total/NA	Water	245.1	
180-172180-J-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 95747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	245.1	95643
MB 810-95643/1-A	Method Blank	Total/NA	Water	245.1	95643
LCS 810-95643/3-A	Lab Control Sample	Total/NA	Water	245.1	95643
LLCS 810-95643/2-A	Lab Control Sample	Total/NA	Water	245.1	95643
180-172180-J-3-B MS	Matrix Spike	Total/NA	Water	245.1	95643

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-90697-1

Metals (Continued)

Analysis Batch: 95747 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-172180-J-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	95643

General Chemistry

Analysis Batch: 85344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 2540C	
MB 380-85344/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-85344/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-85344/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-85344/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-85344/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-90652-F-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 85430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 4500 S2 D	
MBL 380-85430/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-85430/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-85430/25	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-85430/17	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
MRL 380-85430/2	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-90697-1 MS	AIEA WELLS P2 (260)	Total/NA	Water	SM 4500 S2 D	
380-90697-1 MSD	AIEA WELLS P2 (260)	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 85876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 4500 F C	
MB 380-85876/40	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-85876/6	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-85876/42	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-85876/43	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-85876/41	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-85876/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-90768-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-90768-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 85878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 2320B	
MB 380-85878/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-85878/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-85878/18	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-85878/4	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-85878/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-90768-A-4 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-90768-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-90768-A-4 DU	Duplicate	Total/NA	Water	SM 2320B	

QC Association Summary

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

Job ID: 380-90697-1

General Chemistry

Analysis Batch: 85881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 2510B	
MB 380-85881/2	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-85881/4	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-85881/16	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-85881/3	Lab Control Sample	Total/NA	Water	SM 2510B	
380-90768-A-4 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 85883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-90697-1	AIEA WELLS P2 (260)	Total/NA	Water	SM 4500 H+ B	
MB 380-85883/4	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-85883/5	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-85883/17	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-90768-A-4 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 380-90697-1

Client Sample ID: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-1

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	85832	N4CJ	EA POM	04/15/24 07:55
Total/NA	Analysis	524.2		1	86244	D5TU	EA POM	04/15/24 07:55
Total/NA	Analysis	524.2		1	85520	WE3W	EA POM	04/11/24 18:13
Total/NA	Prep	525.2			85424	OTM3	EA POM	04/11/24 11:48
Total/NA	Analysis	525.2		1	85639	Q8LA	EA POM	04/12/24 12:59
Total/NA	Prep	504.1			85451	LZ8Q	EA POM	04/11/24 16:00 - 04/11/24 17:00 ¹
Total/NA	Analysis	504.1		1	85666	LZ8Q	EA POM	04/12/24 08:31
Total/NA	Prep	505			85586	DR5R	EA POM	04/12/24 13:40 - 04/12/24 14:40 ¹
Total/NA	Analysis	505		1	85992	ULRL	EA POM	04/13/24 06:23
Total/NA	Analysis	300.0		5	85559	XLG4	EA POM	04/11/24 20:02
Total/NA	Analysis	300.0		1	85757	UNJR	EA POM	04/13/24 01:24
Total/NA	Analysis	300.0		1	85306	XLG4	EA POM	04/10/24 17:28
Total/NA	Analysis	300.0		1	85307	XLG4	EA POM	04/10/24 17:28
Total/NA	Analysis	200.7 Rev 4.4		1	85696	YHP7	EA POM	04/11/24 18:40
Total/NA	Analysis	200.8		1	85716	T8RV	EA POM	04/12/24 00:12
Total/NA	Prep	245.1			95643	AC	EA SB	04/16/24 11:07
Total/NA	Analysis	245.1		1	95747	AC	EA SB	04/16/24 17:16
Total/NA	Analysis	SM 2320B		1	85878	GP4S	EA POM	04/12/24 15:33
Total/NA	Analysis	SM 2510B		1	85881	GP4S	EA POM	04/12/24 15:33
Total/NA	Analysis	SM 2540C		1	85344	UJRF	EA POM	04/10/24 18:24
Total/NA	Analysis	SM 4500 F C		1	85876	GP4S	EA POM	04/12/24 15:56
Total/NA	Analysis	SM 4500 H+ B		1	85883	GP4S	EA POM	04/12/24 15:33
Total/NA	Analysis	SM 4500 S2 D		1	85430	MQP5	EA POM	04/11/24 09:33

Client Sample ID: TB: AIEA WELLS P2 (260)

Lab Sample ID: 380-90697-2

Date Collected: 04/09/24 08:35

Matrix: Water

Date Received: 04/10/24 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	85832	N4CJ	EA POM	04/15/24 08:17
Total/NA	Analysis	524.2		1	86244	D5TU	EA POM	04/15/24 08:17
Total/NA	Analysis	524.2		1	85520	WE3W	EA POM	04/11/24 18:36
Total/NA	Prep	504.1			85697	LZ8Q	EA POM	04/13/24 14:00 - 04/13/24 16:00 ¹
Total/NA	Analysis	504.1		1	85944	LZ8Q	EA POM	04/14/24 04:39

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

Accreditation/Certification Summary

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

Job ID: 380-90697-1

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	02-12-24 *

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

Analysis Method	Prep Method	Matrix	Analyte
505	505	Water	Polychlorinated biphenyls, Total
524.2		Water	1,1,1,2-Tetrachloroethane
524.2		Water	1,1,2,2-Tetrachloroethane
524.2		Water	1,1-Dichloroethane
524.2		Water	1,1-Dichloropropene
524.2		Water	1,2,3-Trichlorobenzene
524.2		Water	1,2,3-Trichloropropane
524.2		Water	1,2,4-Trimethylbenzene
524.2		Water	1,3,5-Trimethylbenzene
524.2		Water	1,3 Dichloropropane
524.2		Water	1,3-Dichloropropene, Total
524.2		Water	2,2-Dichloropropane
524.2		Water	2-Butanone (MEK)
524.2		Water	4-Methyl-2-pentanone (MIBK)
524.2		Water	Acetone
524.2		Water	Bromobenzene
524.2		Water	Bromochloromethane
524.2		Water	Bromodichloromethane
524.2		Water	Bromoethane
524.2		Water	Bromoform
524.2		Water	Bromomethane (Methyl Bromide)
524.2		Water	Carbon disulfide
524.2		Water	Chlorodibromomethane
524.2		Water	Chloroethane
524.2		Water	Chloroform (Trichloromethane)
524.2		Water	Chloromethane (methyl chloride)
524.2		Water	cis-1,3-Dichloropropene
524.2		Water	Dibromomethane
524.2		Water	Dichlorodifluoromethane
524.2		Water	Diisopropyl ether
524.2		Water	Hexachlorobutadiene
524.2		Water	Isopropylbenzene
524.2		Water	m,p-Xylenes
524.2		Water	m-Dichlorobenzene (1,3-DCB)
524.2		Water	Naphthalene
524.2		Water	n-Butylbenzene
524.2		Water	N-Propylbenzene
524.2		Water	o-Chlorotoluene
524.2		Water	o-Xylene
524.2		Water	p-Chlorotoluene
524.2		Water	p-Isopropyltoluene
524.2		Water	sec-Butylbenzene
524.2		Water	tert-Butylbenzene
524.2		Water	Tertiary Butyl Alcohol (TBA)
524.2		Water	trans-1,3-Dichloropropene

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

Accreditation/Certification Summary

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

Job ID: 380-90697-1

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

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

Accreditation/Certification Summary

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

Job ID: 380-90697-1

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
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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	Water	Naphthalene
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Phenanthrene
525.2	525.2	Water	Pyrene
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Thiobencarb
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor
525.2	525.2	Water	Trifluralin
SM 2320B		Water	Bicarbonate Alkalinity as CaCO ₃
SM 2320B		Water	Carbonate Alkalinity as CaCO ₃
SM 4500 S2 D		Water	Sulfide

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
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A2LA	ISO/IEC 17025	5794.01	07-31-24
Alabama	State	40700	06-30-24
Alaska	State	IN00035	06-30-24
Arizona	State	AZ0432	07-26-24
Arkansas (DW)	State	EPA IN00035	06-30-24
California	State	2920	06-30-24
Colorado	State	IN00035	02-28-25
Connecticut	State	PH-0132	03-31-26
Delaware (DW)	State	IN00035	06-30-24
Florida	NELAP	E87775	06-30-24
Georgia (DW)	State	929	06-30-24
Guam	State	23-011R	07-15-24
Hawaii	State	IN035	06-30-24
Idaho (DW)	State	IN00035	12-31-24
IL Dept. of Public Health (Micro)	State	17767	07-01-24
Illinois	NELAP	200001	09-19-24
Indiana	State	C-71-01	12-31-25
Indiana (Micro)	State	M-76-07	12-31-25
Iowa	State	IA Lab #098	11-01-25
Kansas	NELAP	E-10233	10-31-24
Kentucky (DW)	State	KY90056	12-31-24
Louisiana (DW)	State	LA014	12-31-24
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-24
Massachusetts	State	M-IN035	06-30-24
MI - RadChem Recognition	State	9926	06-30-24
Michigan	State	9926	06-30-24
Minnesota	NELAP	1989807	12-31-24

Accreditation/Certification Summary

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

Job ID: 380-90697-1

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
Mississippi	State	IN00035	06-30-24
Missouri	State	880	09-30-24
Montana (DW)	State	CERT0026	01-01-25
Nebraska	State	NE-OS-05-04	06-30-24
Nevada	State	IN000352024-01	07-31-24
New Hampshire	NELAP	2124	11-05-24
New Jersey	NELAP	IN598	06-30-24
New Mexico	State	IN00035	06-30-24
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	06-30-24
Ohio	State	87775	06-30-24
Oklahoma	NELAP	D9508	08-31-24
Oregon	NELAP	4156	09-16-24
Pennsylvania	NELAP	68-00466	04-30-25
Puerto Rico	State	IN00035	04-01-25
Rhode Island	State	LAO00343	12-30-24
South Carolina	State	95005001	07-01-25
South Dakota (DW)	State	IN00035	06-30-24
Tennessee	State	TN02973	06-30-24
Texas	NELAP	T104704187-22-16	12-31-24
Texas	TCEQ Water Supply	TX207	06-30-24
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	11-15-24
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	06-30-24



Method Summary

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

Job ID: 380-90697-1

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
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	EA POM
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA POM
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
504.1	Microextraction	EPA-DW	EA POM
505	Extraction, Organochlorine Pesticides/PCBs	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
None	Autocomplete Prep - Metals - No Digestion required	None	EA POM

Protocol References:

EPA = US Environmental Protection Agency

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

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

None = None

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

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

Sample Summary

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

Job ID: 380-90697-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-90697-1	AIEA WELLS P2 (260)	Water	04/09/24 08:35	04/10/24 10:17
380-90697-2	TB: AIEA WELLS P2 (260)	Water	04/09/24 08:35	04/10/24 10:17

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Chain of Custody Record

Client Information			Lab PM		Carrier Tracking No(s)		COC No															
Client Contact: PREETHA ANAND Dr. Ron Fenstemacher Company: 808-748-5840 City & County of Honolulu PWSID			Arada, Rachelle E-Mail: Rachelle.Arada@et.eurofins.com		State of Origin		380-21932-1845.1															
Address: 630 South Beretania Street Chemistry Lab City: Honolulu State, Zip: HI, 96843 Phone: 808-748-5091(Tel) Email: RFENSTEMACHER@hbws.org Project Name: RED-HILL Site: Hawaii			Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: C205225101 exp 05312023 WC #: Project #: 38001111 SSOV#:		Analysis Requested SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs SUBCONTRACT - 625 Base Neutral LL (EAL) Physis SUBCONTRACT - 625 Acid LL (EAL) Physis 8015B_GRO_LL - (MOD) GRO		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:															
Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Water, Swab, G-washbill, etc)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	504.1_PREC_505_LL_PREC	2220B_2510B_SM4500_H+	200.7_200.8	2540C_Calcd - Total Dissolved Solids (TDS)	SM4500_S2_D - Sulfide, Total	524.2_Pres_PREC_524.2_SIM_PREC	525.2_PREC - 525plus Plus TICs	300_OF_28D_B_300_OF_28D_PREC_300_OF_48H_PREC_4500_F_C	245.1 - 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	Total Number of Containers	Special Instructions/Note:	
KAAMILO WELLS				Water																		
AIEA GULCH WELLS PUMP 2				Water																		
AIEA WELLS P 2 (260)	4/19/24	0835	G	Water			6	1	1	1	1	6	3	2	1	2	2	2	4			
HALAWA WELLS UNITS 1 & 2				Water																		
MOANALUA WELLS				Water																		
TB: KAAMILO WELLS				Water																		
TB: AIEA GULCH WELLS PUMP 2				Water																		
TB: AIEA WELLS PUMPS 1&2(260)				Water																		
TB: HALAWA WELLS UNITS 1 & 2				Water																		
TB: MOANALUA WELLS				Water																		
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:		Method of Shipment: 1 7758 8718 1810 2 7758 8718 1821														
Relinquished by:	Date/Time: A-9-24 1200	Company:	Relinquished by: GREENNER Date/Time: 04/10/2024 10:17 Company: FEAR		Relinquished by: GREENNER Date/Time: 04/10/2024 10:17 Company: FEAR		Relinquished by: GREENNER Date/Time: 04/10/2024 10:17 Company: FEAR		Relinquished by: GREENNER Date/Time: 04/10/2024 10:17 Company: FEAR													
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 75.1A 4.0°-0.1°-3.9°-2 1.7°-0.1°-1.6° GEL-FROZEN																



Chain of Custody Record



Client Information		Lab PM Arada, Rachelle		COC No 380-21932-1845 2	
Client Contact Dr. Ron Fenstemacher		E-Mail Rachelle.Arada@et.eurofins.com		Page Page 2 of 2	
Company City & County of Honolulu		PWSID		Job #	
Address: 630 South Beretania Street Chemistry Lab		Due Date Requested:		Analysis Requested	
City Honolulu		TAT Requested (days):		Total Number of Containers	
State, Zip: HI, 96843		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - PH 4-5 X - Trizma Y - EDTA Z - other (specify) Other:	
Phone 808-748-5091(Tel)		PO #: C20525101 exp 05312023			
Email RFENSTEMACHER@hbws.org		WG #			
Project Name: RED-HILL		Project #: 38001111			
Site Hawaii		SSOW#:			
Sample Identification		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
Sample ID	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Water, Seawater, Groundwater)	Preservation Code
KAAMILO WELLS				Water	
AIEA GULCH WELLS PUMP 2				Water	
AIEA WELLS P (260)	4/9/24	0835	G	Water	
HALAWA WELLS UNITS 1 & 2				Water	
MOANALUA WELLS				Water	
TB: KAAMILO WELLS				Water	
TB: AIEA GULCH WELLS PUMP 2				Water	
TB: AIEA WELLS PUMPS 1&2(260)				Water	
TB: HALAWA WELLS UNITS 1 & 2				Water	
TB: MOANALUA WELLS				Water	
Possible Hazard Identification		Date/Time		Method of Shipment	
<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)		Date/Time	Date/Time	Date/Time	Date/Time
Empty Kit Relinquished by:		4-9-24	1200	Received by:	FEDEX
Relinquished by:				Received by:	7758 8718 1821
Relinquished by:				Received by:	G. RETNER
Relinquished by:				Received by:	04/10/2024 10:17
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Company	
Color Temperature(s) °C and Other Remarks: FSTA 4.0° - 0.1° = 3.9° 2 1.7° - 0.1° = 1.6° 66C-FASTER				Company	



Bottle Order Information

Bottle Order: RED-HILL - Quarterly
 Bottle Order #: 1845
 Request From Client: 12/14/2022
 Date Order Posted: 6/23/2022 7:29:27AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
 Deliver By Date: 3/1/2024 11:59:00PM
 Lab Project Number: 38001111
 PWSID: HI00000331

Order Completion Information

Creator: Michelle Do
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
5	6	30	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	504.1_PREC - Local Method	Water	Normal		
5	1	5	Plastic 250ml - unpreserved	None	505_LL_PREC - (MOD) ML505 +505-EAL Aldrin Dieldrin Tox	Water	Normal		
5	1	5	Plastic 500ml - with Nitric Acid	Nitric Acid	2320B - (MOD) Total Alkalinity SM4500_H+ - Local Method 2510B - Conductivity	Water	Normal		
5	1	5	Plastic 500ml - unpreserved	None	200.8 - Metals, Priority Pollutant by 200.8 200.7 - (MOD) Custom	Water	Normal		
5	1	5	Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	2540C_Calcd - Total Dissolved Solids (TDS)	Water	Normal		
5	6	30	Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	SM4500_S2_D - Sulfide, Total	Water	Normal		
5	3	15	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	524.2_Pres_PREC - VOASDWA plus TICs + Acetone	Water	Normal		
5	2	10	Plastic 125mL - unpreserved	None	524.2_SIM_PREC - TBA by 524.2 SIM	Water	Normal		
5	1	5	Plastic 250ml - with Nitric Acid	Nitric Acid	525.2_PREC - 525plus Plus TICs	Water	Normal		
5	2	10	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	300_OF_28D_B - Bromide 4500_F_C - Fluoride 300_OF_28D_PREC - Chloride and Sulfate 300_OF_48H_PREC - Nitrite, Nitrate, and Nitrite+Nitrate	Water	Normal		
5	1	5	Plastic 250ml - with Nitric Acid	Nitric Acid	245.1 - Local Method	Water	Normal		
5	2	10	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal		

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.



5	2	10	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 Base Neutral LL (EAL) Physis	Water	Normal
5	2	10	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 Acid LL (EAL) Physis	Water	Normal
5	4	20	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	8015B_GRO_LL - (MOD) GRO	Water	Normal
5	2	10	Amber Glass 500mL - Na2SO3	Sodium Sulfite	8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18	Water	Normal
5	2	10	Voa Vial 40ml - unpreserved	None	8015B_DAI - Ethanol	Water	Normal
5	6	30	Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	524.2_Pres_PREC - VOASDWA plus TICs + Acetone	Water	Trip Blank
5	3	15	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	524.2_SIM_PREC - TBA by 524.2 SIM	Water	Trip Blank
5	2	10	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	504.1_PREC - Local Method	Water	Trip Blank
					8015B_GRO_LL - (MOD) GRO	Water	Trip Blank

Total Bottle Summary

Bottle Type Description

Normal

- Amber Glass 1 liter - Sodium Thiosulfate
- Amber Glass 1 Liter- Sodium Sulfite/HCl
- Amber Glass 500mL - Na2SO3
- Plastic 125mL - unpreserved
- Plastic 250ml - unpreserved
- Plastic 250ml - with Nitric Acid
- Plastic 250ml - with Zinc Acetate & NaOH
- Plastic 500ml - unpreserved
- Plastic 500ml - with Nitric Acid
- Voa Vial 40ml - Hydrochloric Acid
- Voa Vial 40ml - unpreserved
- Voa Vial 40ml Amber - Ascor. Acid & HCL
- Voa Vial 40ml Amber - Sodium thiosulfate

Trip Blank

- Voa Vial 40ml - Hydrochloric Acid
- Voa Vial 40ml Amber - Ascor. Acid & HCL
- Voa Vial 40ml Amber - Sodium thiosulfate

Preservative

- Sodium Thiosulfate
- Sodium Sulfite w/HCl
- Sodium Sulfite
- None
- None
- Nitric Acid
- Zinc Acetate and Sodium Hydroxide
- None
- Nitric Acid
- Hydrochloric Acid
- None
- Ascorbic Acid and Hydrochloric Acid
- Sodium Thiosulfate

- Hydrochloric Acid
- Ascorbic Acid and Hydrochloric Acid
- Sodium Thiosulfate

Bottle Count

- 180
- 30
- 15
- 10
- 10
- 5
- 5
- 5
- 5
- 5
- 20
- 10
- 30
- 30

- 55
- 10
- 30
- 15

Total Bottles: 235

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.



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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:
Shipping/Receiving		Phone:	Arada, Rachelle	State of Origin:	380-118350.1
Company: Eurofins Eaton Analytical		E-Mail: Rachelle.Arada@et.eurofins.com		Hawaii	Page: Page 1 of 1
Address: 110 S Hill Street,		Due Date Requested:	Accreditations Required (See note):		Job #: 380-90697-1
City: South Bend		4/30/2024	State - Hawaii		Preservation Codes:
State, Zip: IN, 46617		TAT Requested (days):	Analysis Requested		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsHClO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)
Phone: 574-233-4777(Tel) 574-233-8207(Fax)		PC #:	Field Filtered Sample (Yes or No)		Other:
Email:		WO #:	Perform MS/MSD (Yes or No)		
Project Name: RED-HILL		Project #:	245.1/245.1_Prep Mercury by 245.1		
Site: Honolulu BWS Sites		SSOW#:	pH < 2 pH > 10 pH 4 to 10		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Invert, Swab, Overstok, Br-Treat, AAU)
AIEA WELLS P2 (260) (380-90697-1)		4/9/24	08:35		Water
Client Provided Sample Container		Preservation Code:		Special Instructions/Note:	
		Water		Total Number of containers: 1	
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/substrate/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Critical Temp: 0.8 Corrected Temp: 0.8 IRI Gen #: 08 WBT	
Possible Hazard Identification		Return To Client		Archive For	
Unconfirmed		Disposal By Lab		Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: <i>Rand Ariza</i>		Date/Time: 4/11/24	7:30	Received by: <i>Randy Phillips</i>	
Relinquished by:		Date/Time:		Date/Time: 04/12/24	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-90697-1

Login Number: 90697
List Number: 1
Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-90697-1

Login Number: 90697
List Number: 3
Creator: Pehling-Wright, Penny

List Source: Eurofins Eaton Analytical South Bend
List Creation: 04/12/24 01:44 PM

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

