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ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-78439-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

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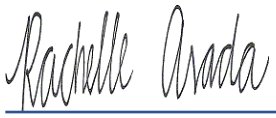
The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization



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Definitions/Glossary

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

Job ID: 380-78439-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

GC Semi VOA

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

HPLC/IC

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

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Glossary (Continued)

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

Job Narrative
380-78439-1

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 1/12/2024 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1°C, 1.4°C and 2.1°C

Receipt Exceptions
Headspace exists (the bubbles are greater than 6 mm) in all six of the received 524 Travel Blank vials. Client will resample.

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
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 380-71731 contained Cadmium and Silver above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

General Chemistry
Method SM4500_S2_D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 380-71978 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Detection Summary

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS — Lab Sample ID: 380-78439-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.020		0.010		ug/L	1		505	Total/NA
Chlordane (n.o.s.)	0.11		0.10		ug/L	1		505	Total/NA
Bromide	290		5.0		ug/L	1		300.0	Total/NA
Chloride	110		2.5		mg/L	5		300.0	Total/NA
Nitrate as N	0.55		0.25		mg/L	5		300.0	Total/NA
Sulfate	17		1.3		mg/L	5		300.0	Total/NA
Calcium	20		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	19		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	44		1.0		mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.4		1.0		ug/L	1		200.8	Total Recoverable
Alkalinity	59		2.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	59		2.0		mg/L	1		SM 2320B	Total/NA
Specific Conductance	520		2.0		umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	320		20		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF			SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TB:MOANALUA WELLS — Lab Sample ID: 380-78439-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS

Date Collected: 01/11/24 10:00
Date Received: 01/12/24 09:25

Lab Sample ID: 380-78439-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
2,4'-DDE	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
2,4'-DDT	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
4,4'-DDD	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
4,4'-DDE	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
4,4'-DDT	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Acenaphthene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Acenaphthylene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Acetochlor	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Alachlor	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
alpha-BHC	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
alpha-Chlordane	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Anthracene	<0.020		0.020		ug/L		01/16/24 10:40	01/17/24 13:03	1
Atrazine	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Benz(a)anthracene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Benzo[a]pyrene	<0.020		0.020		ug/L		01/16/24 10:40	01/17/24 13:03	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		01/16/24 10:40	01/17/24 13:03	1
Benzo[g,h,i]perylene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		01/16/24 10:40	01/17/24 13:03	1
beta-BHC	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60		ug/L		01/16/24 10:40	01/17/24 13:03	1
Bromacil	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Butachlor	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Butylbenzylphthalate	<0.50		0.50		ug/L		01/16/24 10:40	01/17/24 13:03	1
Chlorobenzilate	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Chloroneb	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Chlorpyrifos	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Chrysene	<0.020		0.020		ug/L		01/16/24 10:40	01/17/24 13:03	1
delta-BHC	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Di(2-ethylhexyl)adipate	<0.60		0.60		ug/L		01/16/24 10:40	01/17/24 13:03	1
Dibenz(a,h)anthracene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Diclorvos (DDVP)	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Dieldrin	<0.20		0.20		ug/L		01/16/24 10:40	01/17/24 13:03	1
Diethylphthalate	<0.50		0.50		ug/L		01/16/24 10:40	01/17/24 13:03	1
Dimethylphthalate	<0.50		0.50		ug/L		01/16/24 10:40	01/17/24 13:03	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		01/16/24 10:40	01/17/24 13:03	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Endosulfan sulfate	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Endrin	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Endrin aldehyde	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
EPTC	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Fluoranthene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Fluorene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
gamma-BHC (Lindane)	<0.040		0.040		ug/L		01/16/24 10:40	01/17/24 13:03	1

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS
Date Collected: 01/11/24 10:00
Date Received: 01/12/24 09:25

Lab Sample ID: 380-78439-1
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
gamma-Chlordane	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Heptachlor	<0.040		0.040		ug/L		01/16/24 10:40	01/17/24 13:03	1
Heptachlor epoxide (isomer B)	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Hexachlorobenzene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Hexachlorocyclopentadiene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Isophorone	<0.50		0.50		ug/L		01/16/24 10:40	01/17/24 13:03	1
Malathion	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Methoxychlor	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Metolachlor	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Molinate	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Naphthalene	<0.30		0.30		ug/L		01/16/24 10:40	01/17/24 13:03	1
Parathion	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Phenanthrene	<0.040		0.040		ug/L		01/16/24 10:40	01/17/24 13:03	1
Propachlor	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Pyrene	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Simazine	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Terbacil	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Terbuthylazine	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
Thiobencarb	<0.20		0.20		ug/L		01/16/24 10:40	01/17/24 13:03	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		01/16/24 10:40	01/17/24 13:03	1
trans-Nonachlor	<0.050		0.050		ug/L		01/16/24 10:40	01/17/24 13:03	1
Trifluralin	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
1-Methylnaphthalene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1
2-Methylnaphthalene	<0.099		0.099		ug/L		01/16/24 10:40	01/17/24 13:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*01/16/24 10:40*	*01/17/24 13:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*109*		*70 - 130*	*01/16/24 10:40*	*01/17/24 13:03*	*1*
Perylene-d12	*89*		*70 - 130*	*01/16/24 10:40*	*01/17/24 13:03*	*1*
Triphenylphosphate	*105*		*70 - 130*	*01/16/24 10:40*	*01/17/24 13:03*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020		ug/L		01/15/24 14:30	01/16/24 04:07	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010		ug/L		01/15/24 14:30	01/16/24 04:07	1
1,2-Dibromoethane	<0.010		0.010		ug/L		01/15/24 14:30	01/16/24 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane (Surr)	*103*		*60 - 140*	*01/15/24 14:30*	*01/16/24 04:07*	*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		01/17/24 13:46	01/17/24 23:09	1
Dieldrin	**0.020**		0.010		ug/L		01/17/24 13:46	01/17/24 23:09	1
Toxaphene	<0.50		0.50		ug/L		01/17/24 13:46	01/17/24 23:09	1
Alachlor	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
Chlordane (n.o.s.)	**0.11**		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1

Client Sample ID: MOANALUA WELLS

Date Collected: 01/11/24 10:00
Date Received: 01/12/24 09:25

Lab Sample ID: 380-78439-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Endrin	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 23:09	1
Heptachlor	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 23:09	1
Heptachlor epoxide	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 23:09	1
gamma-BHC (Lindane)	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 23:09	1
Methoxychlor	<0.050		0.050		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1016	<0.071		0.071		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1221	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1232	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1242	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1248	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1254	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1
PCB-1260	<0.071		0.071		ug/L		01/17/24 13:46	01/17/24 23:09	1
Polychlorinated biphenyls, Total	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*70 - 130*	*01/17/24 13:46*	*01/17/24 23:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**290**		5.0		ug/L			01/15/24 22:32	1
Chloride	**110**		2.5		mg/L			01/13/24 00:19	5
Nitrate as N	**0.55**		0.25		mg/L			01/13/24 00:19	5
Nitrite as N	<0.25		0.25		mg/L			01/13/24 00:19	5
Sulfate	**17**		1.3		mg/L			01/13/24 00:19	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**20**		1.0		mg/L			01/16/24 16:22	1
Magnesium	**19**		0.10		mg/L			01/16/24 16:22	1
Potassium	**2.4**		1.0		mg/L			01/16/24 16:22	1
Sodium	**44**		1.0		mg/L			01/16/24 16:22	1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Arsenic	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Beryllium	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Cadmium	<0.50	^2	0.50		ug/L		01/13/24 11:03	01/15/24 14:15	1
Chromium	**2.4**		1.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Copper	<2.0		2.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Lead	<0.50		0.50		ug/L		01/13/24 11:03	01/15/24 14:15	1
Nickel	<5.0		5.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Selenium	<5.0		5.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Silver	<0.50	^2	0.50		ug/L		01/13/24 11:03	01/15/24 14:15	1
Thallium	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 14:15	1
Zinc	<20		20		ug/L		01/13/24 11:03	01/15/24 14:15	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10		ug/L		01/19/24 10:50	01/19/24 17:01	1

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-78439-1

Date Collected: 01/11/24 10:00

Matrix: Water

Date Received: 01/12/24 09:25

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	**59**		2.0		mg/L			01/17/24 20:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**59**		2.0		mg/L			01/17/24 20:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.0		2.0		mg/L			01/17/24 20:22	1
Specific Conductance (SM 2510B)	**520**		2.0		umhos/cm			01/17/24 20:22	1
Total Dissolved Solids (SM 2540C)	**320**		20		mg/L			01/15/24 13:57	1
Fluoride (SM 4500 F C)	<0.050		0.050		mg/L			01/17/24 14:23	1
pH (SM 4500 H+ B)	**7.1**	**HF**			SU			01/17/24 20:22	1
Sulfide (SM 4500 S2 D)	<0.050	F1	0.050		mg/L			01/17/24 14:29	1

Client Sample ID: TB:MOANALUA WELLS

Lab Sample ID: 380-78439-2

Date Collected: 01/11/24 10:00

Matrix: Water

Date Received: 01/12/24 09:25

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020		ug/L		01/15/24 14:30	01/16/24 00:43	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010		ug/L		01/15/24 14:30	01/16/24 00:43	1
1,2-Dibromoethane	<0.010		0.010		ug/L		01/15/24 14:30	01/16/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane (Surr)	*101*		*60 - 140*	*01/15/24 14:30*	*01/16/24 00:43*	*1*

Action Limit Summary

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS — Lab Sample ID: 380-78439-1

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	EPAMCLS Limit	Method	Prep Type
Alachlor	<0.050		ug/L		2		525.2	Total/NA
Atrazine	<0.050		ug/L		3		525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L		0.2		525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.60		ug/L		6		525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.60		ug/L		400		525.2	Total/NA
Endrin	<0.099		ug/L		2		525.2	Total/NA
gamma-BHC (Lindane)	<0.040		ug/L		0.2		525.2	Total/NA
Heptachlor	<0.040		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.050		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.050		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.050		ug/L		50		525.2	Total/NA
Methoxychlor	<0.099		ug/L		40		525.2	Total/NA
Simazine	<0.050		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.)	0.11		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
Chloride	110		mg/L			250	300.0	Total/NA
Nitrate as N	0.55		mg/L		10		300.0	Total/NA
Nitrite as N	<0.25		mg/L		1		300.0	Total/NA
Sulfate	17		mg/L			250	300.0	Total/NA
Mercury	<0.10		ug/L		2		245.1	Total/NA
Total Dissolved Solids	320		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA

Client Sample ID: TB:MOANALUA WELLS — Lab Sample ID: 380-78439-2

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-78439-1

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-78106-M-1-A MS	Matrix Spike	101	109	112
380-78190-T-3-A DU	Duplicate	100	104	106
380-78439-1	MOANALUA WELLS	109	89	105
LCS 380-71705/23-A	Lab Control Sample	98	109	105
MB 380-71705/21-A	Method Blank	101	107	108
MRL 380-71705/22-A	Lab Control Sample	96	104	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**

		Percent Surrogate Recovery (Acceptance Limits)
		DBPP1
Lab Sample ID	Client Sample ID	(60-140)
380-78173-W-1-B MS	Matrix Spike	100
380-78439-1	MOANALUA WELLS	103
380-78439-2	TB:MOANALUA WELLS	101
380-78170-AN-1-A DU	Duplicate	104
LCS 380-71606/29-A	Lab Control Sample	96
MBL 380-71606/4-A	Method Blank	96
MRL 380-71606/2-A	Lab Control Sample	92
MRL 380-71606/3-A	Lab Control Sample	98

Surrogate Legend

DBPP = 1,2-Dibromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TCX1
Lab Sample ID	Client Sample ID	(70-130)
380-78179-R-1-E MS	Matrix Spike	110
380-78179-R-1-F MS	Matrix Spike	104
380-78439-1	MOANALUA WELLS	102
380-78158-AH-1-E MS	Matrix Spike	110
380-78158-AH-1-F MS	Matrix Spike	112
MB 380-71736/13-A	Method Blank	105
MRL 380-71736/10-A	Lab Control Sample	105
MRL 380-71736/9-A	Lab Control Sample	110

Surrogate Legend

TCX = Tetrachloro-m-xylene

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

Lab Sample ID: MB 380-71705/21-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71705

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
2,4'-DDE	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
2,4'-DDT	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
4,4'-DDD	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
4,4'-DDE	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
4,4'-DDT	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Acenaphthene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Acenaphthylene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Acetochlor	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Alachlor	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
alpha-BHC	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
alpha-Chlordane	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Anthracene	<0.020		0.020		ug/L		01/16/24 08:43	01/17/24 09:06	1
Atrazine	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Benz(a)anthracene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Benzo[a]pyrene	<0.020		0.020		ug/L		01/16/24 08:43	01/17/24 09:06	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		01/16/24 08:43	01/17/24 09:06	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		01/16/24 08:43	01/17/24 09:06	1
beta-BHC	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		01/16/24 08:43	01/17/24 09:06	1
Bromacil	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Butachlor	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Butylbenzylphthalate	<0.49		0.49		ug/L		01/16/24 08:43	01/17/24 09:06	1
Chlorobenzilate	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Chloroneb	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Chlorpyrifos	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Chrysene	<0.020		0.020		ug/L		01/16/24 08:43	01/17/24 09:06	1
delta-BHC	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Di(2-ethylhexyl)adipate	<0.59		0.59		ug/L		01/16/24 08:43	01/17/24 09:06	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Dieldrin	<0.20		0.20		ug/L		01/16/24 08:43	01/17/24 09:06	1
Diethylphthalate	<0.49		0.49		ug/L		01/16/24 08:43	01/17/24 09:06	1
Dimethylphthalate	<0.49		0.49		ug/L		01/16/24 08:43	01/17/24 09:06	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		01/16/24 08:43	01/17/24 09:06	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Endosulfan sulfate	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Endrin	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Endrin aldehyde	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
EPTC	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Fluoranthene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Fluorene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1

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

Lab Sample ID: MB 380-71705/21-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71705

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	<0.040		0.040		ug/L		01/16/24 08:43	01/17/24 09:06	1
gamma-Chlordane	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Heptachlor	<0.040		0.040		ug/L		01/16/24 08:43	01/17/24 09:06	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Hexachlorobenzene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Isophorone	<0.49		0.49		ug/L		01/16/24 08:43	01/17/24 09:06	1
Malathion	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Methoxychlor	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Metolachlor	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Molinate	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Naphthalene	<0.30		0.30		ug/L		01/16/24 08:43	01/17/24 09:06	1
Parathion	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Phenanthrene	<0.040		0.040		ug/L		01/16/24 08:43	01/17/24 09:06	1
Propachlor	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Pyrene	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Simazine	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Terbacil	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Terbuthylazine	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
Thiobencarb	<0.20		0.20		ug/L		01/16/24 08:43	01/17/24 09:06	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		01/16/24 08:43	01/17/24 09:06	1
trans-Nonachlor	<0.049		0.049		ug/L		01/16/24 08:43	01/17/24 09:06	1
Trifluralin	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
1-Methylnaphthalene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1
2-Methylnaphthalene	<0.099		0.099		ug/L		01/16/24 08:43	01/17/24 09:06	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Decane	*2.63*	*T J N*	*ug/L*		*2.36*	*124-18-5*	*01/16/24 08:43*	*01/17/24 09:06*	*1*
Phenol, 2,4-bis(1,1-dimethylethyl)-	*0.608*	*T J N*	*ug/L*		*4.16*	*96-76-4*	*01/16/24 08:43*	*01/17/24 09:06*	*1*
9-Octadecenamide, (Z)-	*0.631*	*T J N*	*ug/L*		*7.45*	*301-02-0*	*01/16/24 08:43*	*01/17/24 09:06*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*101*		*70 - 130*	*01/16/24 08:43*	*01/17/24 09:06*	*1*
Perylene-d12	*107*		*70 - 130*	*01/16/24 08:43*	*01/17/24 09:06*	*1*
Triphenylphosphate	*108*		*70 - 130*	*01/16/24 08:43*	*01/17/24 09:06*	*1*

Lab Sample ID: LCS 380-71705/23-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.98	1.97		ug/L		100	70 - 130
2,4'-DDE	1.98	2.07		ug/L		104	70 - 130
2,4'-DDT	1.98	1.97		ug/L		100	70 - 130
2,4-Dinitrotoluene	1.98	1.71		ug/L		86	70 - 130
2,6-Dinitrotoluene	1.98	1.82		ug/L		92	70 - 130

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

Lab Sample ID: LCS 380-71705/23-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.98	1.88		ug/L		95	70 - 130
4,4'-DDE	1.98	1.94		ug/L		98	70 - 130
4,4'-DDT	1.98	1.87		ug/L		94	70 - 130
Acenaphthene	1.98	1.86		ug/L		94	70 - 130
Acenaphthylene	1.98	1.84		ug/L		93	70 - 130
Acetochlor	1.98	1.73		ug/L		87	70 - 130
Alachlor	1.98	2.14		ug/L		108	70 - 130
alpha-BHC	1.98	1.76		ug/L		89	70 - 130
alpha-Chlordane	1.98	2.27		ug/L		115	70 - 130
Anthracene	1.98	1.95		ug/L		98	70 - 130
Atrazine	1.98	1.94		ug/L		98	70 - 130
Benz(a)anthracene	1.98	1.85		ug/L		94	70 - 130
Benzo[a]pyrene	1.98	2.18		ug/L		110	70 - 130
Benzo[b]fluoranthene	1.98	2.05		ug/L		104	70 - 130
Benzo[g,h,i]perylene	1.98	2.22		ug/L		112	70 - 130
Benzo[k]fluoranthene	1.98	2.34		ug/L		118	70 - 130
beta-BHC	1.98	1.84		ug/L		93	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.92		ug/L		97	70 - 130
Bromacil	1.98	1.96		ug/L		99	70 - 130
Butachlor	1.98	2.22		ug/L		112	70 - 130
Butylbenzylphthalate	1.98	2.12		ug/L		107	70 - 130
Chlorobenzilate	1.98	2.25		ug/L		114	70 - 130
Chloroneb	1.98	1.97		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.11		ug/L		106	70 - 130
Chlorpyrifos	1.98	2.12		ug/L		107	70 - 130
Chrysene	1.98	1.97		ug/L		99	70 - 130
delta-BHC	1.98	1.84		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.13		ug/L		107	70 - 130
Dibenz(a,h)anthracene	1.98	2.39		ug/L		121	70 - 130
Diclorvos (DDVP)	1.98	1.74		ug/L		88	70 - 130
Dieldrin	1.98	1.96		ug/L		99	70 - 130
Diethylphthalate	1.98	1.87		ug/L		94	70 - 130
Dimethylphthalate	1.98	1.98		ug/L		100	70 - 130
Di-n-butyl phthalate	3.96	4.33		ug/L		109	70 - 130
Di-n-octyl phthalate	1.98	1.50		ug/L		76	70 - 130
Endosulfan I (Alpha)	1.98	1.98		ug/L		100	70 - 130
Endosulfan II (Beta)	1.98	1.94		ug/L		98	70 - 130
Endosulfan sulfate	1.98	2.27		ug/L		115	70 - 130
Endrin	1.98	2.05		ug/L		103	70 - 130
Endrin aldehyde	1.98	2.01		ug/L		101	70 - 130
EPTC	1.98	2.26		ug/L		114	70 - 130
Fluoranthene	1.98	1.99		ug/L		100	70 - 130
Fluorene	1.98	1.95		ug/L		99	70 - 130
gamma-BHC (Lindane)	1.98	1.90		ug/L		96	70 - 130
gamma-Chlordane	1.98	2.30		ug/L		116	70 - 130
Heptachlor	1.98	1.94		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.31		ug/L		116	70 - 130
Hexachlorobenzene	1.98	2.01		ug/L		101	70 - 130
Hexachlorocyclopentadiene	1.98	2.06		ug/L		104	70 - 130

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

Lab Sample ID: LCS 380-71705/23-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	1.98	2.40		ug/L		121	70 - 130
Isophorone	1.98	1.71		ug/L		86	70 - 130
Malathion	1.98	2.30		ug/L		116	70 - 130
Methoxychlor	1.98	1.92		ug/L		97	70 - 130
Metolachlor	1.98	2.13		ug/L		108	70 - 130
Molinate	1.98	2.01		ug/L		102	70 - 130
Naphthalene	1.98	1.92		ug/L		97	70 - 130
Parathion	1.98	1.84		ug/L		93	70 - 130
Pendimethalin (Penoxaline)	1.98	1.91		ug/L		97	70 - 130
Phenanthrene	1.98	1.93		ug/L		98	70 - 130
Propachlor	1.98	1.92		ug/L		97	70 - 130
Pyrene	1.98	1.98		ug/L		100	70 - 130
Simazine	1.98	2.01		ug/L		101	70 - 130
Terbacil	1.98	1.95		ug/L		99	70 - 130
Terbuthylazine	1.98	1.90		ug/L		96	70 - 130
Thiobencarb	1.98	1.96		ug/L		99	70 - 130
trans-Nonachlor	1.98	2.07		ug/L		105	70 - 130
Trifluralin	1.98	2.14		ug/L		108	70 - 130
1-Methylnaphthalene	1.98	2.00		ug/L		101	70 - 130
2-Methylnaphthalene	1.98	2.09		ug/L		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*98*		*70 - 130*
Perylene-d12	*109*		*70 - 130*
Triphenylphosphate	*105*		*70 - 130*

Lab Sample ID: MRL 380-71705/22-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0994	0.118		ug/L		119	50 - 150
2,4'-DDE	0.0994	0.0968	J	ug/L		97	50 - 150
2,4'-DDT	0.0994	0.0856	J	ug/L		86	50 - 150
2,4-Dinitrotoluene	0.0994	0.0730	J	ug/L		73	50 - 150
2,6-Dinitrotoluene	0.0994	0.0850	J	ug/L		85	50 - 150
4,4'-DDD	0.0994	0.0870	J	ug/L		88	50 - 150
4,4'-DDE	0.0994	0.137		ug/L		138	50 - 150
4,4'-DDT	0.0994	0.111		ug/L		111	50 - 150
Acenaphthene	0.0994	0.0946	J	ug/L		95	50 - 150
Acenaphthylene	0.0994	0.0877	J	ug/L		88	50 - 150
Acetochlor	0.0497	0.0413	J	ug/L		83	50 - 150
Alachlor	0.0497	0.0513		ug/L		103	50 - 150
alpha-BHC	0.0994	0.0957	J	ug/L		96	50 - 150
alpha-Chlordane	0.0249	<0.029		ug/L		116	50 - 150
Anthracene	0.0199	<0.019		ug/L		94	50 - 150
Atrazine	0.0497	<0.048		ug/L		90	50 - 150
Benz(a)anthracene	0.0497	0.0503		ug/L		101	50 - 150

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

Lab Sample ID: MRL 380-71705/22-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	0.0199	0.0163	J	ug/L		82	50 - 150
Benzo[b]fluoranthene	0.0199	0.0164	J	ug/L		83	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0465	J	ug/L		94	50 - 150
Benzo[k]fluoranthene	0.0199	<0.017		ug/L		77	50 - 150
beta-BHC	0.0994	0.0954	J	ug/L		96	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.595	J	ug/L		100	50 - 150
Bromacil	0.0994	0.0992		ug/L		100	50 - 150
Butachlor	0.0497	0.0508		ug/L		102	50 - 150
Butylbenzylphthalate	0.149	0.143	J	ug/L		96	50 - 150
Chlorobenzilate	0.0994	0.110		ug/L		111	50 - 150
Chloroneb	0.0994	0.102		ug/L		103	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0994	0.160	^3+	ug/L		161	50 - 150
Chlorpyrifos	0.0497	0.0508		ug/L		102	50 - 150
Chrysene	0.0199	0.0187	J	ug/L		94	50 - 150
delta-BHC	0.0994	0.102		ug/L		103	50 - 150
Di(2-ethylhexyl)adipate	0.298	0.318	J	ug/L		107	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0469	J	ug/L		94	50 - 150
Diclorvos (DDVP)	0.0497	0.0532		ug/L		107	50 - 150
Dieldrin	0.0994	0.112	J	ug/L		112	50 - 150
Diethylphthalate	0.149	0.158	J	ug/L		106	50 - 150
Dimethylphthalate	0.298	0.296	J	ug/L		99	50 - 150
Di-n-butyl phthalate	0.298	0.434	J	ug/L		146	49 - 243
Di-n-octyl phthalate	0.0994	0.115		ug/L		115	50 - 150
Endosulfan I (Alpha)	0.0994	0.0915	J	ug/L		92	50 - 150
Endosulfan II (Beta)	0.0994	0.116		ug/L		117	50 - 150
Endosulfan sulfate	0.0994	0.0888	J	ug/L		89	50 - 150
Endrin	0.0994	0.0960	J	ug/L		97	50 - 150
Endrin aldehyde	0.0994	0.149		ug/L		150	50 - 150
EPTC	0.0994	0.106		ug/L		107	50 - 150
Fluoranthene	0.0497	0.0499	J	ug/L		100	50 - 150
Fluorene	0.0497	<0.050		ug/L		98	50 - 150
gamma-BHC (Lindane)	0.0398	0.0347	J	ug/L		87	50 - 150
gamma-Chlordane	0.0249	0.0291	J	ug/L		117	50 - 150
Heptachlor	0.0398	0.0443		ug/L		111	50 - 150
Heptachlor epoxide (isomer B)	0.0497	0.0613		ug/L		123	50 - 150
Hexachlorobenzene	0.0497	0.0495	J	ug/L		100	50 - 150
Hexachlorocyclopentadiene	0.0497	0.0424	J	ug/L		85	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0414	J	ug/L		83	50 - 150
Isophorone	0.0994	0.0908	J	ug/L		91	50 - 150
Malathion	0.0994	0.104		ug/L		105	50 - 150
Methoxychlor	0.0994	0.104		ug/L		104	50 - 150
Metolachlor	0.0497	0.0549		ug/L		110	50 - 150
Molinate	0.0994	0.100		ug/L		101	50 - 150
Naphthalene	0.0994	0.120	J	ug/L		121	50 - 150
Parathion	0.0994	0.121		ug/L		122	50 - 150
Pendimethalin (Penoxaline)	0.0994	0.0962	J	ug/L		97	50 - 150
Phenanthrene	0.0199	0.0218	J	ug/L		110	50 - 150
Propachlor	0.0497	0.0466	J	ug/L		94	50 - 150
Pyrene	0.0497	0.0492	J	ug/L		99	50 - 150

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

Lab Sample ID: MRL 380-71705/22-A
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Simazine	0.0497	0.0482	J	ug/L		97	50 - 150
Terbacil	0.0994	0.103		ug/L		103	50 - 150
Terbuthylazine	0.0994	0.0924	J	ug/L		93	50 - 150
Thiobencarb	0.0994	0.103	J	ug/L		103	50 - 150
trans-Nonachlor	0.0249	0.0269	J	ug/L		108	50 - 150
Trifluralin	0.0994	0.0839	J	ug/L		84	50 - 150
1-Methylnaphthalene	0.0994	0.115		ug/L		115	50 - 150
2-Methylnaphthalene	0.0994	0.111		ug/L		112	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
2-Nitro-m-xylene	*96*		*70 - 130*
Perylene-d12	*104*		*70 - 130*
Triphenylphosphate	*102*		*70 - 130*

Lab Sample ID: 380-78106-M-1-A MS
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.098		1.94	2.08		ug/L		107	70 - 130
2,4'-DDE	<0.098		1.94	2.14		ug/L		110	70 - 130
2,4'-DDT	<0.098		1.94	2.11		ug/L		108	70 - 130
2,4-Dinitrotoluene	<0.098		1.94	2.04		ug/L		105	70 - 130
2,6-Dinitrotoluene	<0.098		1.94	2.04		ug/L		105	70 - 130
4,4'-DDD	<0.098		1.94	2.03		ug/L		104	70 - 130
4,4'-DDE	<0.098		1.94	1.97		ug/L		101	70 - 130
4,4'-DDT	<0.098		1.94	1.99		ug/L		102	70 - 130
Acenaphthene	<0.098		1.94	1.86		ug/L		96	70 - 130
Acenaphthylene	<0.098		1.94	1.85		ug/L		95	70 - 130
Acetochlor	<0.098		1.94	1.80		ug/L		92	70 - 130
Alachlor	<0.049		1.94	2.15		ug/L		111	70 - 130
alpha-BHC	<0.098		1.94	1.87		ug/L		96	70 - 130
alpha-Chlordane	<0.049		1.94	2.33		ug/L		120	70 - 130
Anthracene	<0.020		1.94	1.93		ug/L		99	70 - 130
Atrazine	<0.049		1.94	2.08		ug/L		107	70 - 130
Benz(a)anthracene	<0.049		1.94	2.02		ug/L		104	70 - 130
Benzo[a]pyrene	<0.020		1.94	2.15		ug/L		111	70 - 130
Benzo[b]fluoranthene	<0.020		1.94	2.17		ug/L		112	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	2.18		ug/L		112	70 - 130
Benzo[k]fluoranthene	<0.020		1.94	2.39		ug/L		123	70 - 130
beta-BHC	<0.098		1.94	1.85		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.94	1.87		ug/L		96	70 - 130
Bromacil	<0.098		1.94	2.28		ug/L		117	70 - 130
Butachlor	<0.049		1.94	2.32		ug/L		119	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.23		ug/L		115	70 - 130
Chlorobenzilate	<0.098		1.94	2.36		ug/L		122	70 - 130
Chloroneb	<0.098		1.94	2.02		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098	^3+	1.94	2.14		ug/L		110	70 - 130

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

Job ID: 380-78439-1

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

Lab Sample ID: 380-78106-M-1-A MS
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	<0.049		1.94	2.16		ug/L		111	70 - 130
Chrysene	<0.020		1.94	1.98		ug/L		102	70 - 130
delta-BHC	<0.098		1.94	1.81		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.94	2.18		ug/L		112	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	2.38		ug/L		122	70 - 130
Diclorvos (DDVP)	<0.049		1.94	1.81		ug/L		93	70 - 130
Dieldrin	<0.20		1.94	2.06		ug/L		106	70 - 130
Diethylphthalate	<0.49		1.94	2.02		ug/L		104	70 - 130
Dimethylphthalate	<0.49		1.94	2.09		ug/L		107	70 - 130
Di-n-butyl phthalate	<0.98		3.89	4.43		ug/L		112	70 - 130
Di-n-octyl phthalate	<0.098		1.94	1.56		ug/L		80	70 - 130
Endosulfan I (Alpha)	<0.098		1.94	1.97		ug/L		101	70 - 130
Endosulfan II (Beta)	<0.098		1.94	2.08		ug/L		107	70 - 130
Endosulfan sulfate	<0.098		1.94	2.44		ug/L		125	70 - 130
Endrin	<0.098		1.94	2.27		ug/L		117	70 - 130
Endrin aldehyde	<0.098		1.94	2.07		ug/L		106	70 - 130
EPTC	<0.098		1.94	2.28		ug/L		117	70 - 130
Fluoranthene	<0.098		1.94	2.03		ug/L		104	70 - 130
Fluorene	<0.049		1.94	2.02		ug/L		104	70 - 130
gamma-BHC (Lindane)	<0.039		1.94	1.99		ug/L		102	70 - 130
gamma-Chlordane	<0.049		1.94	2.34		ug/L		120	70 - 130
Heptachlor	<0.039		1.94	2.05		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	<0.049		1.94	2.30		ug/L		118	70 - 130
Hexachlorobenzene	<0.049		1.94	2.16		ug/L		111	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	2.23		ug/L		115	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	2.35		ug/L		121	70 - 130
Isophorone	<0.49		1.94	1.81		ug/L		93	70 - 130
Malathion	<0.098		1.94	2.31		ug/L		119	70 - 130
Methoxychlor	<0.098		1.94	1.94		ug/L		100	70 - 130
Metolachlor	<0.049		1.94	2.19		ug/L		113	70 - 130
Molinate	<0.098		1.94	2.06		ug/L		106	70 - 130
Naphthalene	<0.29		1.94	1.97		ug/L		101	70 - 130
Parathion	<0.098		1.94	1.92		ug/L		99	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.94	2.08		ug/L		107	70 - 130
Phenanthrene	<0.039		1.94	1.95		ug/L		101	70 - 130
Propachlor	<0.049		1.94	2.07		ug/L		106	70 - 130
Pyrene	<0.049		1.94	2.04		ug/L		105	70 - 130
Simazine	<0.049		1.94	2.22		ug/L		114	70 - 130
Terbacil	<0.098		1.94	2.17		ug/L		111	70 - 130
Terbuthylazine	<0.098		1.94	2.04		ug/L		105	70 - 130
Thiobencarb	<0.20		1.94	1.98		ug/L		102	70 - 130
trans-Nonachlor	<0.049		1.94	2.15		ug/L		111	70 - 130
Trifluralin	<0.098		1.94	2.45		ug/L		126	70 - 130
1-Methylnaphthalene	<0.098		1.94	2.07		ug/L		106	70 - 130
2-Methylnaphthalene	<0.098		1.94	2.14		ug/L		110	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*101*		*70 - 130*

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

Lab Sample ID: 380-78106-M-1-A MS
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71705

Surrogate	MS %Recovery	MS Qualifier	Limits
Perylene-d12	*109*		*70 - 130*
Triphenylphosphate	*112*		*70 - 130*

Lab Sample ID: 380-78190-T-3-A DU
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
2,4'-DDD	<0.098		<0.098		ug/L		NC	20
2,4'-DDE	<0.098		<0.098		ug/L		NC	20
2,4'-DDT	<0.098		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
4,4'-DDD	<0.098		<0.098		ug/L		NC	20
4,4'-DDE	<0.098		<0.098		ug/L		NC	20
4,4'-DDT	<0.098		<0.098		ug/L		NC	20
Acenaphthene	<0.098		<0.098		ug/L		NC	20
Acenaphthylene	<0.098		<0.098		ug/L		NC	20
Acetochlor	<0.098		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.098		ug/L		NC	20
Chloroneb	<0.098		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098	^3+	<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.20		<0.20		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.098		ug/L		NC	20

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

Lab Sample ID: 380-78190-T-3-A DU
Matrix: Water
Analysis Batch: 71883

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 71705

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Endosulfan I (Alpha)	<0.098			<0.098		ug/L				NC	20
Endosulfan II (Beta)	<0.098			<0.098		ug/L				NC	20
Endosulfan sulfate	<0.098			<0.098		ug/L				NC	20
Endrin	<0.098			<0.098		ug/L				NC	20
Endrin aldehyde	<0.098			<0.098		ug/L				NC	20
EPTC	<0.098			<0.098		ug/L				NC	20
Fluoranthene	<0.098			<0.098		ug/L				NC	20
Fluorene	<0.049			<0.049		ug/L				NC	20
gamma-BHC (Lindane)	<0.039			<0.039		ug/L				NC	20
gamma-Chlordane	<0.049			<0.049		ug/L				NC	20
Heptachlor	<0.039			<0.039		ug/L				NC	20
Heptachlor epoxide (isomer B)	<0.049			<0.049		ug/L				NC	20
Hexachlorobenzene	<0.049			<0.049		ug/L				NC	20
Hexachlorocyclopentadiene	<0.049			<0.049		ug/L				NC	20
Indeno[1,2,3-cd]pyrene	<0.049			<0.049		ug/L				NC	20
Isophorone	<0.49			<0.49		ug/L				NC	20
Malathion	<0.098			<0.098		ug/L				NC	20
Methoxychlor	<0.098			<0.098		ug/L				NC	20
Metolachlor	<0.049			<0.049		ug/L				NC	20
Molinate	<0.098			<0.098		ug/L				NC	20
Naphthalene	<0.29			<0.29		ug/L				NC	20
Parathion	<0.098			<0.098		ug/L				NC	20
Pendimethalin (Penoxaline)	<0.098			<0.098		ug/L				NC	20
Phenanthrene	<0.039			<0.039		ug/L				NC	20
Propachlor	<0.049			<0.049		ug/L				NC	20
Pyrene	<0.049			<0.049		ug/L				NC	20
Simazine	<0.049			<0.049		ug/L				NC	20
Terbacil	<0.098			<0.098		ug/L				NC	20
Terbuthylazine	<0.098			<0.098		ug/L				NC	20
Thiobencarb	<0.20			<0.20		ug/L				NC	20
Total Permethrin (mixed isomers)	<0.20			<0.20		ug/L				NC	20
trans-Nonachlor	<0.049			<0.049		ug/L				NC	20
Trifluralin	<0.098			<0.098		ug/L				NC	20
1-Methylnaphthalene	<0.098			<0.098		ug/L				NC	20
2-Methylnaphthalene	<0.098			<0.098		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*100*		*70 - 130*
Perylene-d12	*104*		*70 - 130*
Triphenylphosphate	*106*		*70 - 130*

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

Lab Sample ID: MBL 380-71606/4-A
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71606

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020		ug/L		01/15/24 14:30	01/15/24 18:26	1

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

Lab Sample ID: MBL 380-71606/4-A
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71606

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	<0.0020		0.010		ug/L		01/15/24 14:30	01/15/24 18:26	1
1,2-Dibromoethane	<0.0040		0.010		ug/L		01/15/24 14:30	01/15/24 18:26	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane (Surr)	*96*		*60 - 140*	*01/15/24 14:30*	*01/15/24 18:26*	*1*

Lab Sample ID: LCS 380-71606/29-A
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71606

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			0.200	0.208		ug/L		104	70 - 130		
1,2-Dibromo-3-Chloropropane			0.200	0.189		ug/L		94	70 - 130		
1,2-Dibromoethane			0.200	0.193		ug/L		97	70 - 130		

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

Lab Sample ID: MRL 380-71606/2-A
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71606

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			0.0200	0.0222		ug/L		111	60 - 140		

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
1,2-Dibromopropane (Surr)	*92*		*60 - 140*

Lab Sample ID: MRL 380-71606/3-A
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71606

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			0.0500	0.0530		ug/L		106	60 - 140		
1,2-Dibromo-3-Chloropropane			0.0100	0.0108		ug/L		108	60 - 140		
1,2-Dibromoethane			0.0100	0.00950	J	ug/L		95	60 - 140		

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

Lab Sample ID: 380-78173-W-1-B MS
Matrix: Water
Analysis Batch: 71717

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71606

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane	<0.020		1.24	1.31		ug/L		105	65 - 135		
1,2-Dibromo-3-Chloropropane	<0.010		0.249	0.261		ug/L		105	65 - 135		
1,2-Dibromoethane	<0.010		0.249	0.255		ug/L		102	65 - 135		

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dibromopropane (Surr)	100		60 - 140

Lab Sample ID: 380-78170-AN-1-A DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 71717 — **Prep Batch: 71606**

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 380-71736/13-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72251 — **Prep Batch: 71736**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
Dieldrin	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
Toxaphene	<0.50		0.50		ug/L		01/17/24 13:46	01/17/24 16:48	1
Alachlor	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
Chlordane (n.o.s.)	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
Endrin	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
Heptachlor	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
Heptachlor epoxide	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
gamma-BHC (Lindane)	<0.010		0.010		ug/L		01/17/24 13:46	01/17/24 16:48	1
Methoxychlor	<0.050		0.050		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1016	<0.070		0.070		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1221	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1232	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1242	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1248	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1254	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1
PCB-1260	<0.070		0.070		ug/L		01/17/24 13:46	01/17/24 16:48	1
Polychlorinated biphenyls, Total	<0.10		0.10		ug/L		01/17/24 13:46	01/17/24 16:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	105		70 - 130	01/17/24 13:46	01/17/24 16:48	1

Lab Sample ID: MRL 380-71736/10-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72251 — **Prep Batch: 71736**

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chlordane (n.o.s.)			0.100	0.108		ug/L		108	50 - 150		

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

Lab Sample ID: MRL 380-71736/10-A
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71736

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

Lab Sample ID: MRL 380-71736/9-A
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71736

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	0.0100	0.00801	J	ug/L		80	50 - 150
Dieldrin	0.0100	0.00771	J	ug/L		77	50 - 150
Alachlor	0.100	0.0847	J	ug/L		85	50 - 150
Endrin	0.0100	0.0111		ug/L		111	50 - 150
Heptachlor	0.0100	0.00987	J	ug/L		99	50 - 150
Heptachlor epoxide	0.0100	0.00707	J	ug/L		71	50 - 150
gamma-BHC (Lindane)	0.0100	0.00956	J	ug/L		96	50 - 150
Methoxychlor	0.0500	0.0431	J	ug/L		86	50 - 150

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

Lab Sample ID: 380-78179-R-1-E MS
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	<0.0099		0.0199	0.0200		ug/L		101	65 - 135
Dieldrin	<0.0099		0.0199	0.0170		ug/L		85	65 - 135
Alachlor	<0.099		0.199	0.180		ug/L		90	65 - 135
Endrin	<0.0099		0.0199	0.0213		ug/L		107	65 - 135
Heptachlor	<0.0099		0.0199	0.0223		ug/L		112	65 - 135
Heptachlor epoxide	<0.0099		0.0199	0.0172		ug/L		86	65 - 135
gamma-BHC (Lindane)	<0.0099		0.0199	0.0193		ug/L		97	65 - 135
Methoxychlor	<0.049		0.0997	0.0944		ug/L		95	65 - 135

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

Lab Sample ID: 380-78179-R-1-F MS
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.099		0.501	0.491		ug/L		98	65 - 135

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

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

Lab Sample ID: 380-78158-AH-1-E MS
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	<0.010		0.100	0.0989		ug/L		99	65 - 135
Dieldrin	<0.010		0.100	0.0932		ug/L		93	65 - 135
Alachlor	<0.10		1.00	0.952		ug/L		95	65 - 135
Endrin	<0.010		0.100	0.108		ug/L		108	65 - 135
Heptachlor	<0.010		0.100	0.107		ug/L		107	65 - 135
Heptachlor epoxide	<0.010		0.100	0.0959		ug/L		96	65 - 135
gamma-BHC (Lindane)	<0.010		0.100	0.0993		ug/L		99	65 - 135
Methoxychlor	<0.051		0.500	0.495		ug/L		99	65 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*110*		*70 - 130*

Lab Sample ID: 380-78158-AH-1-F MS
Matrix: Water
Analysis Batch: 72251

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	<0.10		0.500	0.507		ug/L		101	65 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*112*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-71492/41
Matrix: Water
Analysis Batch: 71492

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			01/12/24 22:49	1
Nitrite as N	<0.050		0.050		mg/L			01/12/24 22:49	1

Lab Sample ID: LCS 380-71492/44
Matrix: Water
Analysis Batch: 71492

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	2.41		mg/L		96	90 - 110
Nitrite as N			1.00	0.968		mg/L		97	90 - 110

Lab Sample ID: LCSD 380-71492/45
Matrix: Water
Analysis Batch: 71492

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	2.47		mg/L		99	90 - 110	3	20
Nitrite as N			1.00	0.993		mg/L		99	90 - 110	3	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-71492/42
Matrix: Water
Analysis Batch: 71492

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	0.0123	J	mg/L		99	50 - 150
Nitrite as N	0.0125	0.0110	J	mg/L		88	50 - 150

Lab Sample ID: MRL 380-71492/43
Matrix: Water
Analysis Batch: 71492

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	0.0462	J	mg/L		92	50 - 150
Nitrite as N	0.0500	0.0466	J	mg/L		93	50 - 150

Lab Sample ID: 380-78439-1 MS
Matrix: Water
Analysis Batch: 71492

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.55		6.25	6.73		mg/L		99	80 - 120
Nitrite as N	<0.25		2.50	2.31		mg/L		93	80 - 120

Lab Sample ID: 380-78439-1 MSD
Matrix: Water
Analysis Batch: 71492

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.55		6.25	6.72		mg/L		99	80 - 120	0	20
Nitrite as N	<0.25		2.50	2.30		mg/L		92	80 - 120	0	20

Lab Sample ID: MB 380-71493/41
Matrix: Water
Analysis Batch: 71493

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50		mg/L			01/12/24 22:49	1
Sulfate	<0.25		0.25		mg/L			01/12/24 22:49	1

Lab Sample ID: LCS 380-71493/44
Matrix: Water
Analysis Batch: 71493

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	25.0		mg/L		100	90 - 110
Sulfate	50.0	49.4		mg/L		99	90 - 110

Lab Sample ID: LCSD 380-71493/45
Matrix: Water
Analysis Batch: 71493

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25.0	25.7		mg/L		103	90 - 110	3	20
Sulfate	50.0	50.7		mg/L		101	90 - 110	3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 380-71493/42
Matrix: Water
Analysis Batch: 71493

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	0.130	J	mg/L		104	50 - 150
Sulfate	0.250	0.250		mg/L		100	50 - 150

Lab Sample ID: MRL 380-71493/43
Matrix: Water
Analysis Batch: 71493

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	0.440	J	mg/L		88	50 - 150
Sulfate	1.00	1.23		mg/L		123	50 - 150

Lab Sample ID: 380-78439-1 MS
Matrix: Water
Analysis Batch: 71493

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		62.5	171		mg/L		99	80 - 120
Sulfate	17		125	143		mg/L		101	80 - 120

Lab Sample ID: 380-78439-1 MSD
Matrix: Water
Analysis Batch: 71493

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		62.5	171		mg/L		99	80 - 120	0	20
Sulfate	17		125	143		mg/L		101	80 - 120	0	20

Lab Sample ID: MB 380-71690/5
Matrix: Water
Analysis Batch: 71690

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<5.0		5.0		ug/L			01/15/24 18:34	1

Lab Sample ID: LCS 380-71690/6
Matrix: Water
Analysis Batch: 71690

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	96.2		ug/L		96	90 - 110

Lab Sample ID: LCSD 380-71690/7
Matrix: Water
Analysis Batch: 71690

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	100		ug/L		100	90 - 110	4	10

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-71690/4
Matrix: Water
Analysis Batch: 71690

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	5.13		ug/L		103	75 - 125		

Lab Sample ID: 380-78317-R-1 MS
Matrix: Water
Analysis Batch: 71690

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromide	<5.0		50.0	47.9		ug/L		96	80 - 120		

Lab Sample ID: 380-78317-R-1 MSD
Matrix: Water
Analysis Batch: 71690

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	<5.0		50.0	48.5		ug/L		97	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 380-71905/18
Matrix: Water
Analysis Batch: 71905

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.0		1.0		mg/L			01/16/24 15:49	1
Magnesium	<0.10		0.10		mg/L			01/16/24 15:49	1
Potassium	<1.0		1.0		mg/L			01/16/24 15:49	1
Sodium	<1.0		1.0		mg/L			01/16/24 15:49	1

Lab Sample ID: LCS 380-71905/20
Matrix: Water
Analysis Batch: 71905

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			50.0	51.2		mg/L		102	85 - 115		
Magnesium			20.0	20.0		mg/L		100	85 - 115		
Potassium			20.0	20.3		mg/L		101	85 - 115		
Sodium			50.0	49.9		mg/L		100	85 - 115		

Lab Sample ID: LCSD 380-71905/21
Matrix: Water
Analysis Batch: 71905

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium			50.0	51.9		mg/L		104	85 - 115	1	20
Magnesium			20.0	20.5		mg/L		102	85 - 115	2	20
Potassium			20.0	20.8		mg/L		104	85 - 115	2	20
Sodium			50.0	51.4		mg/L		103	85 - 115	3	20

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

Lab Sample ID: LLCS 380-71905/19
Matrix: Water
Analysis Batch: 71905

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	0.994	J	mg/L		99	50 - 150		
Magnesium			0.100	0.0938	J	mg/L		94	50 - 150		
Potassium			1.00	0.777	J	mg/L		78	50 - 150		
Sodium			1.00	0.955	J	mg/L		95	50 - 150		

Lab Sample ID: 380-78166-G-1 MS
Matrix: Water
Analysis Batch: 71905

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium	73		50.0	120		mg/L		94	70 - 130		
Magnesium	28		20.0	47.9		mg/L		98	70 - 130		
Potassium	5.8		20.0	27.9		mg/L		110	70 - 130		
Sodium	100		50.0	146		mg/L		84	70 - 130		

Lab Sample ID: 380-78166-G-1 MSD
Matrix: Water
Analysis Batch: 71905

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	73		50.0	120		mg/L		94	70 - 130	0	20
Magnesium	28		20.0	48.2		mg/L		100	70 - 130	1	20
Potassium	5.8		20.0	28.2		mg/L		112	70 - 130	1	20
Sodium	100		50.0	148		mg/L		88	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 380-71514/1-A
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Arsenic	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Beryllium	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Cadmium	<0.50		0.50		ug/L		01/13/24 11:03	01/15/24 13:50	1
Chromium	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Copper	<2.0		2.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Lead	<0.50		0.50		ug/L		01/13/24 11:03	01/15/24 13:50	1
Nickel	<5.0		5.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Selenium	<5.0		5.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Silver	<0.50		0.50		ug/L		01/13/24 11:03	01/15/24 13:50	1
Thallium	<1.0		1.0		ug/L		01/13/24 11:03	01/15/24 13:50	1
Zinc	<20		20		ug/L		01/13/24 11:03	01/15/24 13:50	1

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

Lab Sample ID: LCS 380-71514/3-A
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	48.7		ug/L		97	85 - 115
Arsenic	50.0	52.9		ug/L		106	85 - 115
Beryllium	25.0	24.2		ug/L		97	85 - 115
Cadmium	25.0	24.3		ug/L		97	85 - 115
Chromium	50.0	49.6		ug/L		99	85 - 115
Copper	50.0	50.9		ug/L		102	85 - 115
Lead	50.0	52.4		ug/L		105	85 - 115
Nickel	50.0	50.2		ug/L		100	85 - 115
Selenium	50.0	50.4		ug/L		101	85 - 115
Silver	25.0	24.0		ug/L		96	85 - 115
Thallium	50.0	51.7		ug/L		103	85 - 115
Zinc	50.0	49.9		ug/L		100	85 - 115

Lab Sample ID: LCSD 380-71514/4-A
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	49.7		ug/L		99	85 - 115	2	20
Arsenic	50.0	54.0		ug/L		108	85 - 115	2	20
Beryllium	25.0	24.0		ug/L		96	85 - 115	1	20
Cadmium	25.0	25.0		ug/L		100	85 - 115	3	20
Chromium	50.0	51.9		ug/L		104	85 - 115	4	20
Copper	50.0	51.7		ug/L		103	85 - 115	2	20
Lead	50.0	53.2		ug/L		106	85 - 115	1	20
Nickel	50.0	49.7		ug/L		99	85 - 115	1	20
Selenium	50.0	51.1		ug/L		102	85 - 115	1	20
Silver	25.0	25.1		ug/L		100	85 - 115	5	20
Thallium	50.0	52.7		ug/L		105	85 - 115	2	20
Zinc	50.0	50.7		ug/L		101	85 - 115	2	20

Lab Sample ID: LLCS 380-71514/2-A
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	1.05		ug/L		105	50 - 150
Arsenic	1.00	1.13		ug/L		113	50 - 150
Beryllium	1.00	1.05		ug/L		105	50 - 150
Cadmium	0.500	0.532		ug/L		106	50 - 150
Chromium	1.00	1.34		ug/L		134	50 - 150
Copper	2.00	2.12		ug/L		106	50 - 150
Lead	0.500	0.505		ug/L		101	50 - 150
Nickel	5.00	5.34		ug/L		107	50 - 150
Selenium	5.00	5.50		ug/L		110	50 - 150
Silver	0.500	0.399	J	ug/L		80	50 - 150
Thallium	1.00	1.06		ug/L		106	50 - 150
Zinc	20.0	22.2		ug/L		111	50 - 150

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

Lab Sample ID: 380-78427-B-2-B MS
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		50.0	52.0		ug/L		104	70 - 130
Arsenic	<1.0		50.0	56.4		ug/L		111	70 - 130
Beryllium	<1.0		25.0	24.2		ug/L		97	70 - 130
Cadmium	<0.50		25.0	24.9		ug/L		100	70 - 130
Chromium	70	F2 F1	50.0	171	F1	ug/L		202	70 - 130
Copper	<2.0		50.0	49.0		ug/L		97	70 - 130
Lead	<0.50		50.0	49.7		ug/L		99	70 - 130
Nickel	<5.0		50.0	49.4		ug/L		96	70 - 130
Selenium	<5.0		50.0	54.9		ug/L		105	70 - 130
Silver	<0.50		25.0	23.8		ug/L		94	70 - 130
Thallium	<1.0		50.0	49.4		ug/L		99	70 - 130
Zinc	<20		50.0	48.6		ug/L		97	70 - 130

Lab Sample ID: 380-78427-B-2-C MSD
Matrix: Water
Analysis Batch: 71731

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 71514

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<1.0		50.0	52.4		ug/L		105	70 - 130	1	20
Arsenic	<1.0		50.0	56.8		ug/L		112	70 - 130	1	20
Beryllium	<1.0		25.0	24.4		ug/L		98	70 - 130	1	20
Cadmium	<0.50		25.0	24.9		ug/L		99	70 - 130	0	20
Chromium	70	F2 F1	50.0	135	F1 F2	ug/L		131	70 - 130	23	20
Copper	<2.0		50.0	48.4		ug/L		96	70 - 130	1	20
Lead	<0.50		50.0	49.8		ug/L		100	70 - 130	0	20
Nickel	<5.0		50.0	49.6		ug/L		97	70 - 130	1	20
Selenium	<5.0		50.0	55.4		ug/L		106	70 - 130	1	20
Silver	<0.50		25.0	23.9		ug/L		95	70 - 130	0	20
Thallium	<1.0		50.0	50.3		ug/L		101	70 - 130	2	20
Zinc	<20		50.0	49.0		ug/L		98	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 810-86185/1-A
Matrix: Water
Analysis Batch: 86223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 86185

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10		ug/L		01/19/24 10:50	01/19/24 16:16	1

Lab Sample ID: LCS 810-86185/3-A
Matrix: Water
Analysis Batch: 86223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86185

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury			1.00	1.07		ug/L		107	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LLCS 810-86185/2-A
Matrix: Water
Analysis Batch: 86223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86185

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.100	0.109		ug/L		109	50 - 150		

Lab Sample ID: 810-90004-A-1-B MS
Matrix: Water
Analysis Batch: 86223

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 86185

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	<0.10		1.00	0.981		ug/L		98	70 - 130		

Lab Sample ID: 810-90004-A-1-C MSD
Matrix: Water
Analysis Batch: 86223

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 86185

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.10		1.00	0.975		ug/L		97	70 - 130	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-72159/1
Matrix: Water
Analysis Batch: 72159

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<2.0		2.0		mg/L			01/17/24 16:28	1
Bicarbonate Alkalinity as CaCO3	<2.0		2.0		mg/L			01/17/24 16:28	1
Carbonate Alkalinity as CaCO3	<2.0		2.0		mg/L			01/17/24 16:28	1

Lab Sample ID: LCS 380-72159/3
Matrix: Water
Analysis Batch: 72159

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			100	94.6		mg/L		95	90 - 110		

Lab Sample ID: LCSD 380-72159/18
Matrix: Water
Analysis Batch: 72159

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	97.8		mg/L		98	90 - 110	3	20

Lab Sample ID: LLCS 380-72159/4
Matrix: Water
Analysis Batch: 72159

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	19.3		mg/L		96	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MRL 380-72159/2
Matrix: Water
Analysis Batch: 72159

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	2.23		mg/L		112	50 - 150		

Lab Sample ID: 380-78278-G-1 MS
Matrix: Water
Analysis Batch: 72159

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	190	F1	100	257	F1	mg/L		66	80 - 120		

Lab Sample ID: 380-78278-G-1 MSD
Matrix: Water
Analysis Batch: 72159

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	190	F1	100	251	F1	mg/L		60	80 - 120	2	20

Lab Sample ID: 380-78278-G-1 DU
Matrix: Water
Analysis Batch: 72159

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	190	F1	193		mg/L		0.8	20
Bicarbonate Alkalinity as CaCO3	190		193		mg/L		0.8	20
Carbonate Alkalinity as CaCO3	<2.0		<2.0		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-72162/2
Matrix: Water
Analysis Batch: 72162

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0		umhos/cm			01/17/24 16:28	1

Lab Sample ID: LCS 380-72162/4
Matrix: Water
Analysis Batch: 72162

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

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

Lab Sample ID: LCSD 380-72162/16
Matrix: Water
Analysis Batch: 72162

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	991		umhos/cm		99	90 - 110	1	10

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

Lab Sample ID: MRL 380-72162/3
Matrix: Water
Analysis Batch: 72162

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: 380-78278-G-1 DU
Matrix: Water
Analysis Batch: 72162

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Specific Conductance	1400			1390		umhos/cm				0.06	20

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

Lab Sample ID: MB 380-71639/1
Matrix: Water
Analysis Batch: 71639

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			01/15/24 13:57	1

Lab Sample ID: HLCS 380-71639/5
Matrix: Water
Analysis Batch: 71639

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	722		mg/L		103	80 - 114		

Lab Sample ID: LCS 380-71639/4
Matrix: Water
Analysis Batch: 71639

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			175	176		mg/L		101	80 - 114		

Lab Sample ID: MRL 380-71639/2
Matrix: Water
Analysis Batch: 71639

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			10.0	7.00	J	mg/L		70	50 - 150		

Lab Sample ID: MRL 380-71639/3
Matrix: Water
Analysis Batch: 71639

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	13.0		mg/L		130	50 - 150		

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

Lab Sample ID: 380-78431-A-1 DU
Matrix: Water
Analysis Batch: 71639

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	300		304		mg/L		1	10

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-72131/40
Matrix: Water
Analysis Batch: 72131

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			01/17/24 13:06	1

Lab Sample ID: MB 380-72131/6
Matrix: Water
Analysis Batch: 72131

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			01/17/24 10:25	1

Lab Sample ID: LCS 380-72131/42
Matrix: Water
Analysis Batch: 72131

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	1.09		mg/L		109	90 - 110

Lab Sample ID: LCSD 380-72131/43
Matrix: Water
Analysis Batch: 72131

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	1.08		mg/L		108	90 - 110	1	10

Lab Sample ID: MRL 380-72131/41
Matrix: Water
Analysis Batch: 72131

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	0.0508		mg/L		102	50 - 150

Lab Sample ID: MRL 380-72131/7
Matrix: Water
Analysis Batch: 72131

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	0.0524		mg/L		105	50 - 150

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 380-78439-1 MS
Matrix: Water
Analysis Batch: 72131

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	<0.050		1.00	1.12		mg/L		108	80 - 120		

Lab Sample ID: 380-78439-1 MSD
Matrix: Water
Analysis Batch: 72131

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<0.050		1.00	1.13		mg/L		109	80 - 120	2	20

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-72164/4
Matrix: Water
Analysis Batch: 72164

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH	5.6				SU			01/17/24 16:28	1

Lab Sample ID: LCS 380-72164/5
Matrix: Water
Analysis Batch: 72164

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

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

Lab Sample ID: LCSD 380-72164/17
Matrix: Water
Analysis Batch: 72164

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

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

Lab Sample ID: 380-78278-G-1 DU
Matrix: Water
Analysis Batch: 72164

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.9			7.8		SU				0.9	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 380-71978/1
Matrix: Water
Analysis Batch: 71978

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.050		0.050		mg/L			01/17/24 14:29	1

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

Lab Sample ID: LCS 380-71978/4
Matrix: Water
Analysis Batch: 71978

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	0.266		mg/L		106	90 - 110

Lab Sample ID: LCSD 380-71978/10
Matrix: Water
Analysis Batch: 71978

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	0.262		mg/L		105	90 - 110	2	20

Lab Sample ID: MRL 380-71978/2
Matrix: Water
Analysis Batch: 71978

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	0.0466	J	mg/L		93	50 - 150

Lab Sample ID: MRL 380-71978/9
Matrix: Water
Analysis Batch: 71978

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	0.0426	J	mg/L		85	50 - 150

Lab Sample ID: 380-78439-1 MS
Matrix: Water
Analysis Batch: 71978

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<0.050	F1	0.250	0.189	F1	mg/L		76	80 - 120

Lab Sample ID: 380-78439-1 MSD
Matrix: Water
Analysis Batch: 71978

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.050	F1	0.250	0.185	F1	mg/L		74	80 - 120	2	20

QC Association Summary

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

Job ID: 380-78439-1

GC/MS Semi VOA

Prep Batch: 71705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	525.2	
MB 380-71705/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-71705/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-71705/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-78106-M-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-78190-T-3-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 71883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	525.2	71705
MB 380-71705/21-A	Method Blank	Total/NA	Water	525.2	71705
LCS 380-71705/23-A	Lab Control Sample	Total/NA	Water	525.2	71705
MRL 380-71705/22-A	Lab Control Sample	Total/NA	Water	525.2	71705
380-78106-M-1-A MS	Matrix Spike	Total/NA	Water	525.2	71705
380-78190-T-3-A DU	Duplicate	Total/NA	Water	525.2	71705

GC Semi VOA

Prep Batch: 71606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	504.1	
380-78439-2	TB:MOANALUA WELLS	Total/NA	Water	504.1	
MBL 380-71606/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-71606/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-71606/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-71606/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-78173-W-1-B MS	Matrix Spike	Total/NA	Water	504.1	
380-78170-AN-1-A DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 71717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	504.1	71606
380-78439-2	TB:MOANALUA WELLS	Total/NA	Water	504.1	71606
MBL 380-71606/4-A	Method Blank	Total/NA	Water	504.1	71606
LCS 380-71606/29-A	Lab Control Sample	Total/NA	Water	504.1	71606
MRL 380-71606/2-A	Lab Control Sample	Total/NA	Water	504.1	71606
MRL 380-71606/3-A	Lab Control Sample	Total/NA	Water	504.1	71606
380-78173-W-1-B MS	Matrix Spike	Total/NA	Water	504.1	71606
380-78170-AN-1-A DU	Duplicate	Total/NA	Water	504.1	71606

Prep Batch: 71736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	505	
MB 380-71736/13-A	Method Blank	Total/NA	Water	505	
MRL 380-71736/10-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-71736/9-A	Lab Control Sample	Total/NA	Water	505	
380-78179-R-1-E MS	Matrix Spike	Total/NA	Water	505	
380-78179-R-1-F MS	Matrix Spike	Total/NA	Water	505	
380-78158-AH-1-E MS	Matrix Spike	Total/NA	Water	505	
380-78158-AH-1-F MS	Matrix Spike	Total/NA	Water	505	

GC Semi VOA

Analysis Batch: 72251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	505	71736
MB 380-71736/13-A	Method Blank	Total/NA	Water	505	71736
MRL 380-71736/10-A	Lab Control Sample	Total/NA	Water	505	71736
MRL 380-71736/9-A	Lab Control Sample	Total/NA	Water	505	71736
380-78179-R-1-E MS	Matrix Spike	Total/NA	Water	505	71736
380-78179-R-1-F MS	Matrix Spike	Total/NA	Water	505	71736
380-78158-AH-1-E MS	Matrix Spike	Total/NA	Water	505	71736
380-78158-AH-1-F MS	Matrix Spike	Total/NA	Water	505	71736

HPLC/IC

Analysis Batch: 71492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	300.0	
MB 380-71492/41	Method Blank	Total/NA	Water	300.0	
LCS 380-71492/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-71492/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-71492/42	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-71492/43	Lab Control Sample	Total/NA	Water	300.0	
380-78439-1 MS	MOANALUA WELLS	Total/NA	Water	300.0	
380-78439-1 MSD	MOANALUA WELLS	Total/NA	Water	300.0	

Analysis Batch: 71493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	300.0	
MB 380-71493/41	Method Blank	Total/NA	Water	300.0	
LCS 380-71493/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-71493/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-71493/42	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-71493/43	Lab Control Sample	Total/NA	Water	300.0	
380-78439-1 MS	MOANALUA WELLS	Total/NA	Water	300.0	
380-78439-1 MSD	MOANALUA WELLS	Total/NA	Water	300.0	

Analysis Batch: 71690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	300.0	
MB 380-71690/5	Method Blank	Total/NA	Water	300.0	
LCS 380-71690/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-71690/7	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-71690/4	Lab Control Sample	Total/NA	Water	300.0	
380-78317-R-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-78317-R-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 71514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total Recoverable	Water	200.8	
MB 380-71514/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 380-71514/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 380-71514/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 380-71514/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Metals (Continued)

Prep Batch: 71514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78427-B-2-B MS	Matrix Spike	Total Recoverable	Water	200.8	
380-78427-B-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Analysis Batch: 71731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total Recoverable	Water	200.8	71514
MB 380-71514/1-A	Method Blank	Total Recoverable	Water	200.8	71514
LCS 380-71514/3-A	Lab Control Sample	Total Recoverable	Water	200.8	71514
LCSD 380-71514/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	71514
LLCS 380-71514/2-A	Lab Control Sample	Total Recoverable	Water	200.8	71514
380-78427-B-2-B MS	Matrix Spike	Total Recoverable	Water	200.8	71514
380-78427-B-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	71514

Analysis Batch: 71905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	200.7 Rev 4.4	
MB 380-71905/18	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-71905/20	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-71905/21	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-71905/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-78166-G-1 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-78166-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Prep Batch: 86185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	245.1	
MB 810-86185/1-A	Method Blank	Total/NA	Water	245.1	
LCS 810-86185/3-A	Lab Control Sample	Total/NA	Water	245.1	
LLCS 810-86185/2-A	Lab Control Sample	Total/NA	Water	245.1	
810-90004-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	
810-90004-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 86223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	245.1	86185
MB 810-86185/1-A	Method Blank	Total/NA	Water	245.1	86185
LCS 810-86185/3-A	Lab Control Sample	Total/NA	Water	245.1	86185
LLCS 810-86185/2-A	Lab Control Sample	Total/NA	Water	245.1	86185
810-90004-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	86185
810-90004-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	86185

General Chemistry

Analysis Batch: 71639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 2540C	
MB 380-71639/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-71639/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-71639/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-71639/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-71639/3	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 71639 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78431-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 71978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 4500 S2 D	
MB 380-71978/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-71978/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-71978/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-71978/2	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
MRL 380-71978/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-78439-1 MS	MOANALUA WELLS	Total/NA	Water	SM 4500 S2 D	
380-78439-1 MSD	MOANALUA WELLS	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 72131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 4500 F C	
MB 380-72131/40	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-72131/6	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-72131/42	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-72131/43	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-72131/41	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-72131/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-78439-1 MS	MOANALUA WELLS	Total/NA	Water	SM 4500 F C	
380-78439-1 MSD	MOANALUA WELLS	Total/NA	Water	SM 4500 F C	

Analysis Batch: 72159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 2320B	
MB 380-72159/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-72159/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-72159/18	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-72159/4	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-72159/2	Lab Control Sample	Total/NA	Water	SM 2320B	
380-78278-G-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-78278-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-78278-G-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 72162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 2510B	
MB 380-72162/2	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-72162/4	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-72162/16	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-72162/3	Lab Control Sample	Total/NA	Water	SM 2510B	
380-78278-G-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 72164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-78439-1	MOANALUA WELLS	Total/NA	Water	SM 4500 H+ B	
MB 380-72164/4	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-72164/5	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 72164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 380-72164/17	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-78278-G-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 380-78439-1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-78439-1

Date Collected: 01/11/24 10:00

Matrix: Water

Date Received: 01/12/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			71705	OTM3	EA POM	01/16/24 10:40
Total/NA	Analysis	525.2		1	71883	Q8LA	EA POM	01/17/24 13:03
Total/NA	Prep	504.1			71606	LZ8Q	EA POM	01/15/24 14:30 - 01/15/24 15:30 [1]
Total/NA	Analysis	504.1		1	71717	LZ8Q	EA POM	01/16/24 04:07
Total/NA	Prep	505			71736	DR5R	EA POM	01/17/24 13:46 - 01/17/24 14:30 [1]
Total/NA	Analysis	505		1	72251	ULRL	EA POM	01/17/24 23:09
Total/NA	Analysis	300.0		5	71492	VB9B	EA POM	01/13/24 00:19
Total/NA	Analysis	300.0		5	71493	VB9B	EA POM	01/13/24 00:19
Total/NA	Analysis	300.0		1	71690	UNJR	EA POM	01/15/24 22:32
Total/NA	Analysis	200.7 Rev 4.4		1	71905	T8RV	EA POM	01/16/24 16:22
Total Recoverable	Prep	200.8			71514	T8BB	EA POM	01/13/24 11:03
Total Recoverable	Analysis	200.8		1	71731	J9ZD	EA POM	01/15/24 14:15
Total/NA	Prep	245.1			86185	AC	EA SB	01/19/24 10:50
Total/NA	Analysis	245.1		1	86223	AC	EA SB	01/19/24 17:01
Total/NA	Analysis	SM 2320B		1	72159	GP4S	EA POM	01/17/24 20:22
Total/NA	Analysis	SM 2510B		1	72162	GP4S	EA POM	01/17/24 20:22
Total/NA	Analysis	SM 2540C		1	71639	D2MW	EA POM	01/15/24 13:57
Total/NA	Analysis	SM 4500 F C		1	72131	GP4S	EA POM	01/17/24 14:23
Total/NA	Analysis	SM 4500 H+ B		1	72164	GP4S	EA POM	01/17/24 20:22
Total/NA	Analysis	SM 4500 S2 D		1	71978	MH2L	EA POM	01/17/24 14:29

Client Sample ID: TB:MOANALUA WELLS

Lab Sample ID: 380-78439-2

Date Collected: 01/11/24 10:00

Matrix: Water

Date Received: 01/12/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	504.1			71606	LZ8Q	EA POM	01/15/24 14:30 - 01/15/24 15:30 [1]
Total/NA	Analysis	504.1		1	71717	LZ8Q	EA POM	01/16/24 00:43

[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: 380-78439-1

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	01-31-24

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
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

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

Job ID: 380-78439-1

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	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Molinate
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	Terbuthylazine
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 CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3
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
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	02-29-24
Connecticut	State	PH-0132	03-31-24
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
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

Accreditation/Certification Summary

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

Job ID: 380-78439-1

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
Michigan	State	9926	06-30-24
Minnesota	NELAP	1989807	12-31-24
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	04-01-24
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	04-30-24
Puerto Rico	State	IN00035	04-01-24
Rhode Island	State	LAO00343	12-30-23 *
South Carolina	State	95005001	06-30-24
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	03-14-24
Washington	State	C837	01-01-24 *
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

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

Method Summary

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

Job ID: 380-78439-1

Method	Method Description	Protocol	Laboratory
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
200.8	Preparation, Total Recoverable Metals	EPA	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: 380-78439-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-78439-1	MOANALUA WELLS	Water	01/11/24 10:00	01/12/24 09:25
380-78439-2	TB:MOANALUA WELLS	Water	01/11/24 10:00	01/12/24 09:25

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

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: NISHIKAWA	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-21931-1845 1
Client Contact: Dr. Ron Fenstemacher	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	504.1_PREC, 505_LL_PREC	2320B, 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 - 8015 Jet Fuel 8 (JP8)	SUBCONTRACT - 8015 Jet Fuel 5 (JP5)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	N	D	N	CB	HA		N	D	RA	RA	RA	R		
KAAMILO WELLS				Water																	
AIEA GULCH WELLS PUMP 2				Water																	
AIEA WELLS P___ (260)				Water																	
HALAWA WELLS UNITS 1 & 2				Water																	
MOANALUA WELLS	1/11/24	1000	G	Water			6	1	1	1	1	6	3	2	1	2	2	2	3		
TB: KAAMILO WELLS				Water																	
TB: AIEA GULCH WELLS PUMP 2				Water																	
TB: AIEA WELLS PUMPS1&2(260)				Water																	
TB: HALAWA WELLS UNITS 1 & 2				Water																	
TB: MOANALUA WELLS	1/11/24	1000	G	Water			6														

380-78439 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: FEDEX 7747 9424 3525 / 14/03

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[redacted]	1/11/24 1200	BWS	[signature]	1-12-24 09:25	EEAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: ① 1.5 - 0.1 = 1.4°C Frozen blue ice IR 7S1A
② 2.2 - 0.1 = 2.1°C ③ 1.2 - 0.1 = 1.1°C

Ver: 06/08/2021

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

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: M/SHIKAWA	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-21931-1845.2
Client Contact: Dr. Ron Fenstemacher	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 8015 Ethanol	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 625 Base Neutral LL (EAL) Physis	SUBCONTRACT - 625 Acid LL (EAL) Physis	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	504.1_PREC - Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	R	R	R	RA	R		
KAAMILO WELLS				Water										
AIEA GULCH WELLS PUMP 2				Water										
AIEA WELLS P___ (260)				Water										
HALAWA WELLS UNITS 1 & 2				Water										
MOANALUA WELLS	1/11/24	~~1115~~ 1000	G	Water			3	2	2	2				
TB: KAAMILO WELLS				Water										
TB: AIEA GULCH WELLS PUMP 2				Water										
TB: AIEA WELLS PUMPS1&2(260)				Water										
TB: HALAWA WELLS UNITS 1 & 2				Water										
TB: MOANALUA WELLS	1/11/24	1000		Water							6	3		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX 7487 9421 3525 / 14 / 23

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	1/11/24 1200	EHS		1-12-24 09 25	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: ① 1.5-0.1=1.4°C frozen blue ice IR W/A
② 2.2-0.1=2.1°C ③ 1.2-0.1=1.1°C

Ver: 06/08/2021

Shipping Order Form - Bottle Order

eurofins Environment Testing

S380-21931

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Shipping Order ID: 21931 | **Ship Via: FedEx** | **Due On: 12/1/2023 11:59:00PM**

When To Ship: 12/ 1/2023

Ship To Information

Project Manager: Rachelle Arada
Tel: (626) 386-1106 Em: Rachelle.Arada@et.eurofinsus.com
Company Name: City & County of Honolulu
Attention: Ron Fenstemacher
Address 1: 630 South Beretania Street
Address 2: Chemistry Lab
Address 3:
City: Honolulu
State: HI
Zip: 96843
Phone #: +1-808-748-5841
Project Ref: RED-HILL

Page 52 of 62

Notes to Bottle/Shipping Department

Pack with Gel Ice
Label the cooler under the left hand handle with the ID of the samples that are in the cooler (If more than 1 cooler is used per 1 sample ID label cooler with "sample ID x of y)
Pack by Sample ID on the bottle labels (with one full set of tests per sample ID)
Send only medium to large coolers
Travel Blanks must be packed in same cooler with their respective field test (524 travel blanks must be packed with 524 vials)

CALL ROBERT DEAN IF THERE ARE QUESTIONS.

Shipping Method: **Pack by sample set (affixed TALS labels)**

- ☑ Ready to Fill
- ☑ Preprinted COC
  - [1] Number of COC Copies
- ☐ Seals on Bottle
- ☐ Seals on Coolers
- ☐ Priority
- ☑ Return Shipment Labels
  - ☑ Prepaid Return
  - Eurofins Eaton Analytical Pomona
- ☐ Short Hold Times
- ☑ Temperature Control
- ☐ Rush

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

1/29/2024

Shipping Assets

Assets	Quantity	Description	Filled
Gel Ice	1	Pack with Gel Ice	☐

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

Order Information

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: 12/1/2023 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		
					505_LL_PREC - (MOD) ML505 +505-EAL Aldrin Dieldrin Tox	Water	Normal		
5	1	5	Plastic 250ml - unpreserved	None	2320B - (MOD) Total Alkalinity	Water	Normal		
					SM4500_H+ - Local Method	Water	Normal		
					2510B - Conductivity	Water	Normal		
5	1	5	Plastic 500ml - with Nitric Acid	Nitric Acid	200.8 - Metals, Priority Pollutant by 200.8	Water	Normal		
					200.7 - (MOD) Custom	Water	Normal		
5	1	5	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids (TDS)	Water	Normal		
5	1	5	Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	SM4500_S2_D - Sulfide, Total	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	Normal		
					524.2_SIM_PREC - TBA by 524.2 SIM	Water	Normal		
5	3	15	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - 525plus Plus TICs	Water	Normal		
5	2	10	Plastic 125mL - unpreserved	None	300_OF_28D_B - Bromide	Water	Normal		
					4500_F_C - Fluoride	Water	Normal		
					300_OF_28D_PREC - Chloride and Sulfate	Water	Normal		
					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		

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 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Jet Fuel 8 (JP8)	Water	Normal		
5	2	10	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Jet Fuel 5 (JP5)	Water	Normal		
5	2	10	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal		
5	3	15	Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal		
5	3	15	Voa Vial 40ml - unpreserved	None	SUBCONTRACT - 8015 Ethanol	Water	Normal		
5	2	10	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal		
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	2	10	VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Trip Blank		
5	6	30	Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	524.2_Pres_PREC - VOASDWA plus TICs + Acetone 524.2_SIM_PREC - TBA by 524.2 SIM	Water Water	Trip Blank Trip Blank		
5	3	15	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	504.1_PREC - Local Method	Water	Trip Blank		

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

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Aci	30
Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	30
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	15
Plastic 125mL - unpreserved	None	10
Plastic 250ml - unpreserved	None	5
Plastic 250ml - with Nitric Acid	Nitric Acid	5
Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	5
Plastic 500ml - unpreserved	None	5
Plastic 500ml - with Nitric Acid	Nitric Acid	5
VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Aci	10
Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	15
Voa Vial 40ml - unpreserved	None	15
Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	60
Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	45
	Total Bottles:	**255**

Notes to Field Staff:

Scan QR code for field sampler instructions

SAMPLER FOLLOW 2 STAGE FIELD PRESERVATION FOR 625, 8015, 524.2, and 525.2

FOLLOW 2 STAGE FIELD PRESERVATION FOR 8015, 525.2, 524.2

USE ALTERNATE SAMPLING POINTS FOR:

(331-203-TP400) AIEA WELLS PUMPS 1&2 (260) AIEA WELLS P__ (260)-331-00__-WL10__ UPDATE BLANKS WITH APPROPRIATE SAMPLE POINT DESCRIPTORS. USE FULL CORRECT ID ON CHAIN OF CUSTODY

AIEA WELLS P1 (260)-331-003-WL102

AIEA WELLS P2 (260)-331-004-WL103

(331-241-TP401) HALAWA SHAFT

Halawa Shaft Viewing Pool

Health and Safety Notes:

Preservative	Comment
Ascorbic Acid and Hydrochloric Acid	Contains 25mg/ml Ascorbic Acid. May cause mild irritation to skin and eyes. CAUTION! CONTAINS 1:1 HYDROCHLORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Nitric Acid	CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Sulfite w/HCl	CAUTION! CONTAINS SODIUM SULFITE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate/Hydrochloric Acid	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. Contains 13.3% Monochloroacetic Acid. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. CAUTION! CONTAINS 1:1 HYDROCHLORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

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

Health and Safety Notes:

Preservative	Comment
Zinc Acetate and Sodium Hydroxide	Contains 2N Zinc Acetate. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. CAUTION! STRONG CAUSTIC! CONTAINS SODIUM HYDROXIDE PELLETS. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal # Seal # Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal # Seal # Seal #

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

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

Chain of Custody Record

eurofins | Environment Testing

1/29/2024

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-100240.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Eaton Analytical		Accreditations Required (See note): State - Hawaii		Job #: 380-78439-1
Address: 110 S Hill Street, ,	Due Date Requested: 2/1/2024			
City: South Bend	TAT Requested (days):			
State, Zip: IN, 46617				
Phone: 574-233-4777(Tel) 574-233-8207(Fax)	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	245.1/245.1_Prep Mercury by 245.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MOANALUA WELLS (380-78439-1)	1/11/24	10:00 Hawaiian		Water			X	1	

Initial Temp: 0 6
Corrected Temp: ~~0 5~~
IR Gun # 24

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Hang Nguyen EEA	1/15/24 0627			1-17-24 0930	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-101755.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Eaton Analytical		Accreditations Required (See note): State - Hawaii		Job #: 380-78439-1
Address: 110 S Hill Street, ,	Due Date Requested: 2/1/2024			
City: South Bend	TAT Requested (days):			
State, Zip: IN, 46617				
Phone: 574-233-4777(Tel) 574-233-8207(Fax)	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	524.2_Pres_PREC/ (MOD) VOC_524.2 Extended (TBA)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MOANALUA WELLS (380-78439-1)	1/11/24	10:00 Hawaiian		Water			X	2	
TB:MOANALUA WELLS (380-78439-2)	1/11/24	10:00 Hawaiian		Water			X	2	

Initial Temp: 1.0
Corrected Temp: 0.4
IR Gun #: 28

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by: Raul Arizo	Date/Time: 1.23.24 6:45pm	Company	Received by: Penny Pehling Wright	Date/Time: 01/24/24 0945	Company EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.: Client Provided Sample Container	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

1/29/2024

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-78439-1

Login Number: 78439
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").	False	Headspace exists in all of the received 524 TB vials.
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-78439-1

Login Number: 78439
List Number: 3
Creator: Moore, Gary

List Source: Eurofins Eaton Analytical South Bend
List Creation: 01/17/24 10:20 AM

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-78439-1

Login Number: 78439
List Number: 4
Creator: Pehling-Wright, Penny

List Source: Eurofins Eaton Analytical South Bend
List Creation: 01/24/24 01:36 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