

ANALYTICAL REPORT

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Laboratory Job ID: 380-7775-1
Client Project/Site: RED-HILL

For:
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Attn: Mr. Erwin Kawata



Authorized for release by:

10/17/2022 3:47:59 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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)



Kathleen Robb
Client Program Manager
10/17/2022 3:47:59 PM





Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	7
Client Sample Results	8
Action Limit Summary	14
Surrogate Summary	16
QC Sample Results	19
QC Association Summary	54
Lab Chronicle	59
Certification Summary	60
Method Summary	62
Sample Summary	63
Chain of Custody	64
Receipt Checklists	94

Definitions/Glossary

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

Job ID: 380-7775-1

Qualifiers

GC/MS VOA

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

GC/MS VOA TICs

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
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	Cal bration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Glossary

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

Definitions/Glossary

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

Job ID: 380-7775-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-7775-1

Job ID: 380-7775-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-7775-1

Comments

No additional comments.

Receipt

The samples were received on 7/7/2022 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.5° C, 2.4° C, 2.4° C, 3.1° C and 4.8° C.

GC/MS VOA

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

GC/MS Semi VOA

Method 525.2: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 380-8530 and analytical batch 380-11144 recovered outside control limits for the following analyte(s): Caffeine and Dimethoate. Caffeine and Dimethoate are commonly poor performing analytes when analyzed using this method; re-extraction/re-analysis was not performed - samples are past hold time for re-extraction..

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

HPLC/IC

Method 300.0: Sample 380-8981--F-1 was used as the MS/MSD, the recovery for NO2 in the native sample was 0.0000 ppm, with a 2x dilution, and it was spiked at a concentration of 0.50ppm. The recovery for the MS was 147% and for the MSD 146%, the recovery for NO3 in the native sample was 8.3570 ppm, with a 2x dilution, and it was spiked at a concentration of 1.25ppm. The recovery for the MS was 146% and for the MSD 145%, the MS exceeded the acceptance range of 80-120%. Parent sample was flagged F1.

The following sample(s) was received outside of holding time: 380-7798-R-3, 380-7798-S-1, 380-7798-S-2, 380-7798-S-4 and 3801-7775-S-1

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

GC Semi VOA

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

Metals

Method 200.8: The continuing calibration blank (CCB) for analytical batch 380-11035 contained 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

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

Organic Prep

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

Detection Summary

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.0031		0.0020	ug/L	1		505	Total/NA
Bromide	180		5.0	ug/L	1		300.0	Total/NA
Chloride	86		2.5	mg/L	5		300.0	Total/NA
Nitrate as N	0.35	H	0.25	mg/L	5		300.0	Total/NA
Nitrate Nitrite as N	0.35	H	0.25	mg/L	5		300.0	Total/NA
Sulfate	12		1.3	mg/L	5		300.0	Total/NA
Calcium	20		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	15		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.0		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	31		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	1.4		1.0	ug/L	1		200.8	Total
Copper	2.7		2.0	ug/L	1		200.8	Total
								Recoverable
A kalinity	52		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	52	B ^2	2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	400	^2	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	230		20	mg/L	1		SM 2540C	Total/NA
pH	7.8	HF		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	ND		2.0	ug/L			07/13/22 00:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				07/13/22 00:21	1
4-Bromofluorobenzene (Surr)	97		70 - 130				07/13/22 00:21	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130				07/13/22 00:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,1,2-Trichloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,1-Dichloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,1-Dichloroethylene	ND		0.50	ug/L			07/13/22 23:32	1
1,1-Dichloropropene	ND		0.50	ug/L			07/13/22 23:32	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			07/13/22 23:32	1
1,2,3-Trichloropropane	ND		0.50	ug/L			07/13/22 23:32	1
1,2,4-Trichlorobenzene	ND		0.50	ug/L			07/13/22 23:32	1
1,2,4-Trimethy benzene	ND		0.50	ug/L			07/13/22 23:32	1
1,2-Dichloroethane	ND		0.50	ug/L			07/13/22 23:32	1
1,2-Dichloropropane	ND		0.50	ug/L			07/13/22 23:32	1
1,3,5-Trimethy benzene	ND		0.50	ug/L			07/13/22 23:32	1
1,3-Dichloropropane	ND		0.50	ug/L			07/13/22 23:32	1
2,2-Dichloropropane	ND		0.50	ug/L			07/13/22 23:32	1
2-Butanone (MEK)	ND		5.0	ug/L			07/13/22 23:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	ug/L			07/13/22 23:32	1
Acetone	ND		500	ug/L			07/13/22 23:32	1
Benzene	ND		0.50	ug/L			07/13/22 23:32	1
Bromobenzene	ND		0.50	ug/L			07/13/22 23:32	1
Bromochloromethane	ND		0.50	ug/L			07/13/22 23:32	1
Bromodichloromethane	ND		0.50	ug/L			07/13/22 23:32	1
Bromoform	ND		0.50	ug/L			07/13/22 23:32	1
Bromomethane (Methyl Bromide)	ND		0.50	ug/L			07/13/22 23:32	1
Carbon disulfide	ND		0.50	ug/L			07/13/22 23:32	1
Carbon tetrachloride	ND		0.50	ug/L			07/13/22 23:32	1
Chlorobenzene	ND		0.50	ug/L			07/13/22 23:32	1
Chlorodibromomethane	ND		0.50	ug/L			07/13/22 23:32	1
Chloroethane	ND		0.50	ug/L			07/13/22 23:32	1
Chloroform (Trichloromethane)	ND		0.50	ug/L			07/13/22 23:32	1
Dichloromethane	ND		0.50	ug/L			07/13/22 23:32	1
cis-1,2-Dichloroethylene	ND		0.50	ug/L			07/13/22 23:32	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			07/13/22 23:32	1
Dibromomethane	ND		0.50	ug/L			07/13/22 23:32	1
Dichlorodifluoromethane	ND		0.50	ug/L			07/13/22 23:32	1
Ethylbenzene	ND		0.50	ug/L			07/13/22 23:32	1
Hexachlorobutadiene	ND		0.50	ug/L			07/13/22 23:32	1
Isopropy benzene	ND		0.50	ug/L			07/13/22 23:32	1
m,p-Xylenes	ND		0.50	ug/L			07/13/22 23:32	1
m-Dichlorobenzene (1,3-DCB)	ND		0.50	ug/L			07/13/22 23:32	1

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Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-tert-butyl Ether (MTBE)	ND		0.50	ug/L			07/13/22 23:32	1
Naphthalene	ND		0.50	ug/L			07/13/22 23:32	1
n-Butylbenzene	ND		0.50	ug/L			07/13/22 23:32	1
N-Propylbenzene	ND		0.50	ug/L			07/13/22 23:32	1
o-Dichlorobenzene (1,2-DCB)	ND		0.50	ug/L			07/13/22 23:32	1
o-Chlorotoluene	ND		0.50	ug/L			07/13/22 23:32	1
o-Xylene	ND		0.50	ug/L			07/13/22 23:32	1
p-Chlorotoluene	ND		0.50	ug/L			07/13/22 23:32	1
p-Dichlorobenzene (1,4-DCB)	ND		0.50	ug/L			07/13/22 23:32	1
p-Isopropyltoluene	ND		0.50	ug/L			07/13/22 23:32	1
sec-Butylbenzene	ND		0.50	ug/L			07/13/22 23:32	1
Styrene	ND		0.50	ug/L			07/13/22 23:32	1
Tert-amyl methyl ether	ND		3.0	ug/L			07/13/22 23:32	1
Tert-butyl ethyl ether	ND		3.0	ug/L			07/13/22 23:32	1
tert-Butylbenzene	ND		0.50	ug/L			07/13/22 23:32	1
Tetrachloroethene (PCE)	ND		0.50	ug/L			07/13/22 23:32	1
Toluene	ND		0.50	ug/L			07/13/22 23:32	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			07/13/22 23:32	1
Xylenes, Total	ND		0.50	ug/L			07/13/22 23:32	1
trans-1,2-Dichloroethylene	ND		0.50	ug/L			07/13/22 23:32	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/13/22 23:32	1
Trichloroethylene (TCE)	ND		0.50	ug/L			07/13/22 23:32	1
Trichlorofluoromethane (Freon 11)	ND		0.50	ug/L			07/13/22 23:32	1
Vinyl Chloride (VC)	ND		0.30	ug/L			07/13/22 23:32	1
Trichlorotrifluoroethane	ND		0.50	ug/L			07/13/22 23:32	1
Bromoethane	ND		0.50	ug/L			07/13/22 23:32	1
Chloromethane (methyl chloride)	ND		0.50	ug/L			07/13/22 23:32	1
Diisopropyl ether	ND		3.0	ug/L			07/13/22 23:32	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	28	T J	ug/L		0.99			07/13/22 23:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		07/13/22 23:32	1
4-Bromofluorobenzene (Surr)	98		70 - 130		07/13/22 23:32	1
Toluene-d8 (Surr)	94		70 - 130		07/13/22 23:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
2,4'-DDE	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
2,4'-DDT	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
2,4-Dinitrotoluene	ND	*1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
2,6-Dinitrotoluene	ND	*1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
4,4'-DDD	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
4,4'-DDE	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
4,4'-DDT	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Acenaphthene	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Acenaphthylene	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Acetochlor	ND	*+	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
alpha-BHC	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
alpha-Chlordane	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Anthracene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 19:45	1
Atrazine	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Benz(a)anthracene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Benzo[a]pyrene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 19:45	1
Benzo[b]fluoranthene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 19:45	1
Benzo[g,h,i]perylene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Benzo[k]fluoranthene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 19:45	1
beta-BHC	ND	*1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Bis(2-ethylhexyl) phthalate	ND	*1	0.61	ug/L		07/12/22 09:57	08/02/22 19:45	1
Bromacil	ND	*1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Butachlor	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Butylbenzylphthalate	ND	*+ *1	0.51	ug/L		07/12/22 09:57	08/02/22 19:45	1
Caffeine	ND	*- *1	0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Chlorobenzilate	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Chloroneb	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Chlorpyrifos	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Chrysene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 19:45	1
delta-BHC	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Di(2-ethylhexyl)adipate	ND	*1	0.61	ug/L		07/12/22 09:57	08/02/22 19:45	1
Diazinon (Qualitative)	ND	*1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Dibenz(a,h)anthracene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Diclorvos (DDVP)	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Dieldrin	ND		0.20	ug/L		07/12/22 09:57	08/02/22 19:45	1
Diethylphthalate	ND		0.51	ug/L		07/12/22 09:57	08/02/22 19:45	1
Dimethoate	ND	*- *1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Dimethylphthalate	ND		0.51	ug/L		07/12/22 09:57	08/02/22 19:45	1
Di-n-butyl phthalate	ND		1.0	ug/L		07/12/22 09:57	08/02/22 19:45	1
Di-n-octyl phthalate	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Endosulfan I (Alpha)	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Endosulfan II (Beta)	ND	*1 ^3+	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Endosulfan sulfate	ND	*+ *1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Endrin	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Endrin aldehyde	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
EPTC	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Fluoranthene	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Fluorene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
gamma-BHC (Lindane)	ND		0.040	ug/L		07/12/22 09:57	08/02/22 19:45	1
gamma-Chlordane	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Heptachlor	ND		0.040	ug/L		07/12/22 09:57	08/02/22 19:45	1
Heptachlor epoxide (isomer B)	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Hexachlorobenzene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Hexachlorocyclopentadiene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Indeno[1,2,3-cd]pyrene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Isophorone	ND		0.51	ug/L		07/12/22 09:57	08/02/22 19:45	1
Malathion	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1

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Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Metolachlor	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Metribuzin	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Molinate	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Naphthalene	ND		0.30	ug/L		07/12/22 09:57	08/02/22 19:45	1
Parathion	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Phenanthrene	ND		0.040	ug/L		07/12/22 09:57	08/02/22 19:45	1
Propachlor	ND	*1	0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Pyrene	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Simazine	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Terbacil	ND	*+ *1	0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Terbutylazine	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
Thiobencarb	ND		0.20	ug/L		07/12/22 09:57	08/02/22 19:45	1
Total Permethrin (mixed isomers)	ND	*+ *1	0.20	ug/L		07/12/22 09:57	08/02/22 19:45	1
trans-Nonachlor	ND		0.051	ug/L		07/12/22 09:57	08/02/22 19:45	1
Trifluralin	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
1-Methylnaphthalene	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1
2-Methylnaphthalene	ND		0.10	ug/L		07/12/22 09:57	08/02/22 19:45	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Cyclotetrasiloxane, octamethyl-	0.58	T J N	ug/L		2.31	556-67-2	07/12/22 09:57	08/02/22 19:45	1
Decane	2.4	T J N	ug/L		2.46	124-18-5	07/12/22 09:57	08/02/22 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	102		70 - 130	07/12/22 09:57	08/02/22 19:45	1
Perylene-d12	86		70 - 130	07/12/22 09:57	08/02/22 19:45	1
Triphenylphosphate	92		70 - 130	07/12/22 09:57	08/02/22 19:45	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	ND		0.040	ug/L		07/12/22 08:50	07/12/22 14:37	1
1,2-D bromo-3-Chloropropane	ND		0.010	ug/L		07/12/22 08:50	07/12/22 14:37	1
1,2-D bromoethane	ND		0.010	ug/L		07/12/22 08:50	07/12/22 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	104		60 - 140	07/12/22 08:50	07/12/22 14:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0020	ug/L		07/12/22 18:00	07/13/22 02:47	1
Dieldrin	0.0031		0.0020	ug/L		07/12/22 18:00	07/13/22 02:47	1
Toxaphene	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
Alachlor	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
Chlordane (n.o.s.)	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
Endrin	ND		0.010	ug/L		07/12/22 18:00	07/13/22 02:47	1
Heptachlor	ND		0.010	ug/L		07/12/22 18:00	07/13/22 02:47	1
Heptachlor epoxide	ND		0.010	ug/L		07/12/22 18:00	07/13/22 02:47	1
gamma-BHC (Lindane)	ND		0.010	ug/L		07/12/22 18:00	07/13/22 02:47	1
Methoxychlor	ND		0.051	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1016	ND		0.071	ug/L		07/12/22 18:00	07/13/22 02:47	1

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Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1232	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1242	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1248	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1254	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1
PCB-1260	ND		0.071	ug/L		07/12/22 18:00	07/13/22 02:47	1
Polychlorinated biphenyls, Total	ND		0.10	ug/L		07/12/22 18:00	07/13/22 02:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	100		70 - 130	07/12/22 18:00	07/13/22 02:47	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	180		5.0	ug/L			07/16/22 09:05	1
Chloride	86		2.5	mg/L			07/09/22 02:41	5
Nitrate as N	0.35	H	0.25	mg/L			07/09/22 02:41	5
Nitrate Nitrite as N	0.35	H	0.25	mg/L			07/09/22 02:41	5
Sulfate	12		1.3	mg/L			07/09/22 02:41	5
Nitrite as N	ND	H	0.25	mg/L			07/09/22 02:41	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20		1.0	mg/L			07/14/22 18:58	1
Magnesium	15		0.10	mg/L			07/14/22 18:58	1
Potassium	2.0		1.0	mg/L			07/14/22 18:58	1
Sodium	31		1.0	mg/L			07/14/22 18:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Arsenic	ND		1.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Beryllium	ND		1.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Cadmium	ND		0.50	ug/L		07/27/22 17:11	07/29/22 16:15	1
Chromium	1.4		1.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Copper	2.7		2.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Lead	ND		0.50	ug/L		07/27/22 17:11	07/29/22 16:15	1
Nickel	ND		5.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Selenium	ND		5.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Silver	ND	^2	0.50	ug/L		07/27/22 17:11	07/29/22 16:15	1
Thallium	ND		1.0	ug/L		07/27/22 17:11	07/29/22 16:15	1
Zinc	ND		20	ug/L		07/27/22 17:11	07/29/22 16:15	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		07/18/22 12:00	07/18/22 19:05	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
A kalinity (SM 2320B)	52		2.0	mg/L			07/11/22 23:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	52	B ^2	2.0	mg/L			07/11/22 23:46	1

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Client Sample Results

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO ₃ (SM 2320B)	ND		2.0	mg/L			07/11/22 23:46	1
Specific Conductance (SM 2510B)	400	^2	2.0	umhos/cm			07/11/22 23:46	1
Total Dissolved Solids (SM 2540C)	230		20	mg/L			07/11/22 22:27	1
Fluoride (SM 4500 F C)	ND		0.050	mg/L			07/15/22 13:21	1
pH (SM 4500 H+ B)	7.8	HF		SU			07/11/22 23:46	1



Action Limit Summary

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

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	EPAMCL Limit	EPAMCLS Limit	HI Org Limit	Method	Prep Type
1,1,1-Trichloroethane	ND		ug/L	200		200.0	524.2	Total/NA
1,1,2-Trichloroethane	ND		ug/L	5		5.000	524.2	Total/NA
1,1-Dichloroethylene	ND		ug/L	7		7.000	524.2	Total/NA
1,2,3-Trichloropropane	ND		ug/L			0.6000	524.2	Total/NA
1,2,4-Trichlorobenzene	ND		ug/L	70		70.00	524.2	Total/NA
1,2-Dichloroethane	ND		ug/L	5		5.000	524.2	Total/NA
1,2-Dichloropropane	ND		ug/L	5		5.000	524.2	Total/NA
Benzene	ND		ug/L	5		5.000	524.2	Total/NA
Carbon tetrachloride	ND		ug/L	5		5.000	524.2	Total/NA
Chlorobenzene	ND		ug/L	100		100.0	524.2	Total/NA
Dichloromethane	ND		ug/L	5		5.000	524.2	Total/NA
cis-1,2-Dichloroethylene	ND		ug/L	70		70.00	524.2	Total/NA
Ethylbenzene	ND		ug/L	700		700.0	524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	ND		ug/L	600		600.0	524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	ND		ug/L	75		75.000	524.2	Total/NA
Styrene	ND		ug/L	100		100.0	524.2	Total/NA
Tetrachloroethene (PCE)	ND		ug/L	5		5.000	524.2	Total/NA
Toluene	ND		ug/L	1000		1000	524.2	Total/NA
Xylenes, Total	ND		ug/L	10000		10000	524.2	Total/NA
trans-1,2-Dichloroethylene	ND		ug/L	100		100.0	524.2	Total/NA
Trichloroethylene (TCE)	ND		ug/L	5		5.000	524.2	Total/NA
Vinyl Chloride (VC)	ND		ug/L	2		2.000	524.2	Total/NA
Alachlor	ND		ug/L	2			525.2	Total/NA
Atrazine	ND		ug/L	3			525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2			525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND	*1	ug/L	6			525.2	Total/NA
Di(2-ethylhexyl)adipate	ND	*1	ug/L	400			525.2	Total/NA
Endrin	ND		ug/L	2			525.2	Total/NA
gamma-BHC (Lindane)	ND		ug/L	0.2			525.2	Total/NA
Heptachlor	ND		ug/L	0.4			525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2			525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1			525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50			525.2	Total/NA
Methoxychlor	ND		ug/L	40			525.2	Total/NA
Simazine	ND		ug/L	4			525.2	Total/NA
1,2,3-Trichloropropane	ND		ug/L			0.6000	504.1	Total/NA
1,2-D bromo-3-Chloropropane	ND		ug/L	0.2			504.1	Total/NA
1,2-D bromoethane	ND		ug/L	0.05			504.1	Total/NA
Toxaphene	ND		ug/L	3			505	Total/NA
Alachlor	ND		ug/L	2			505	Total/NA
Endrin	ND		ug/L	2			505	Total/NA
Heptachlor	ND		ug/L	0.4			505	Total/NA
Heptachlor epoxide	ND		ug/L	0.2			505	Total/NA
gamma-BHC (Lindane)	ND		ug/L	0.2			505	Total/NA
Methoxychlor	ND		ug/L	40			505	Total/NA
Polychlorinated biphenyls, Total	ND		ug/L	0.5			505	Total/NA
Chloride	86		mg/L			250	300.0	Total/NA
Nitrate as N	0.35	H	mg/L	10			300.0	Total/NA
Nitrate Nitrite as N	0.35	H	mg/L	10			300.0	Total/NA

Eurofins Eaton Monrovia

Action Limit Summary

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)
(Continued)

Lab Sample ID: 380-7775-1

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	EPAMCL Limit	EPAMCLS Limit	HI Org Limit	Method	Prep Type
Sulfate	12		mg/L		250		300.0	Total/NA
Nitrite as N	ND	H	mg/L	1			300.0	Total/NA
Mercury	ND		mg/L	0.002			245.1	Total/NA
Total Dissolved Solids	230		mg/L		500		SM 2540C	Total/NA
Fluoride	ND		mg/L	4	2		SM 4500 F C	Total/NA



Surrogate Summary

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

Job ID: 380-7775-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
380-7775-1	MOANALUA WELLS (331-223-T	99	97	104

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (50-150)	BFB (50-150)	DCA (50-150)
MRL 380-8671/4	Lab Control Sample	102	97	100

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
LCS 380-8671/2	Lab Control Sample	103	98	98
LCSD 380-8671/3	Lab Control Sample Dup	104	98	98
MB 380-8671/5	Method Blank	103	96	101

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

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
380-7775-1	MOANALUA WELLS (331-223-T	104	98	94

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

Surrogate Summary

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

Job ID: 380-7775-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
LCS 380-8830/5	Lab Control Sample	98	96	104
LCSD 380-8830/6	Lab Control Sample Dup	100	99	105
MB 380-8830/8	Method Blank	106	97	93
MRL 380-8830/3	Lab Control Sample	104	98	96
MRL 380-8830/4	Lab Control Sample	103	101	96

Surrogate Legend

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

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-7775-1	MOANALUA WELLS (331-223-T	102	86	92
380-7775-1 DU	MOANALUA WELLS (331-223-TP202)	105	87	105

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-7411-O-1-A MS	Matrix Spike	97	94	103
LCS 380-8530/3-A	Lab Control Sample	104	85	112
LCSD 380-8530/4-A	Lab Control Sample Dup	105	88	96
MB 380-8530/1-A	Method Blank	114	87	100
MRL 380-8530/2-A	Lab Control Sample	116	89	110

Surrogate Legend

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

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DBPP1 (60-140)
380-7775-1	MOANALUA WELLS (331-223-T	104

Surrogate Legend

DBPP = 1,2-D bromopropane (Surr)

Surrogate Summary

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

Job ID: 380-7775-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-7126-E-1-A MS	Matrix Spike	93
380-7641-C-1-A DU	Duplicate	102
MB 380-8421/4-A	Method Blank	95
MRL 380-8421/1-A	Lab Control Sample	98
MRL 380-8421/2-A	Lab Control Sample	97

Surrogate Legend

DBPP = 1,2-D bromopropane (Surr)

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-7775-1	MOANALUA WELLS (331-223-T	100

Surrogate Legend

TCX = Tetrachloro-m-xylene

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-7028-K-1-B MS	Matrix Spike	107
380-7028-K-1-C MS	Matrix Spike	108
380-7028-K-1-D MS	Matrix Spike	109
380-8712-C-1-A MS	Matrix Spike	103
380-8712-D-1-A MS	Matrix Spike	100
MB 380-8665/7-A	Method Blank	112
MRL 380-8665/2-A	Lab Control Sample	107
MRL 380-8665/3-A	Lab Control Sample	102
MRL 380-8665/4-A	Lab Control Sample	103
MRL 380-8665/5-A	Lab Control Sample	101
MRL 380-8665/6-A	Lab Control Sample	104

Surrogate Legend

TCX = Tetrachloro-m-xylene

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MB 380-8830/8
Matrix: Water
Analysis Batch: 8830

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,1,2-Trichloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,1-Dichloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,1-Dichlorethylene	ND		0.50	ug/L			07/13/22 17:24	1
1,1-Dichloropropene	ND		0.50	ug/L			07/13/22 17:24	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			07/13/22 17:24	1
1,2,3-Trichloropropane	ND		0.50	ug/L			07/13/22 17:24	1
1,2,4-Trichlorobenzene	ND		0.50	ug/L			07/13/22 17:24	1
1,2,4-Trimethy benzene	ND		0.50	ug/L			07/13/22 17:24	1
1,2-Dichloroethane	ND		0.50	ug/L			07/13/22 17:24	1
1,2-Dichloropropane	ND		0.50	ug/L			07/13/22 17:24	1
1,3,5-Trimethy benzene	ND		0.50	ug/L			07/13/22 17:24	1
1,3-Dichloropropane	ND		0.50	ug/L			07/13/22 17:24	1
2,2-Dichloropropane	ND		0.50	ug/L			07/13/22 17:24	1
2-Butanone (MEK)	ND		5.0	ug/L			07/13/22 17:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	ug/L			07/13/22 17:24	1
Acetone	ND		500	ug/L			07/13/22 17:24	1
Benzene	ND		0.50	ug/L			07/13/22 17:24	1
Bromobenzene	ND		0.50	ug/L			07/13/22 17:24	1
Bromochloromethane	ND		0.50	ug/L			07/13/22 17:24	1
Bromodichloromethane	ND		0.50	ug/L			07/13/22 17:24	1
Bromoform	ND		0.50	ug/L			07/13/22 17:24	1
Bromomethane (Methyl Bromide)	ND		0.50	ug/L			07/13/22 17:24	1
Carbon disulfide	ND		0.50	ug/L			07/13/22 17:24	1
Carbon tetrachloride	ND		0.50	ug/L			07/13/22 17:24	1
Chlorobenzene	ND		0.50	ug/L			07/13/22 17:24	1
Chlorodibromomethane	ND		0.50	ug/L			07/13/22 17:24	1
Chloroethane	ND		0.50	ug/L			07/13/22 17:24	1
Chloroform (Trichloromethane)	ND		0.50	ug/L			07/13/22 17:24	1
Dichloromethane	ND		0.50	ug/L			07/13/22 17:24	1
cis-1,2-Dichloroethylene	ND		0.50	ug/L			07/13/22 17:24	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			07/13/22 17:24	1
Dibromomethane	ND		0.50	ug/L			07/13/22 17:24	1
Dichlorodifluoromethane	ND		0.50	ug/L			07/13/22 17:24	1
Ethylbenzene	ND		0.50	ug/L			07/13/22 17:24	1
Hexachlorobutadiene	ND		0.50	ug/L			07/13/22 17:24	1
Isopropy benzene	ND		0.50	ug/L			07/13/22 17:24	1
m,p-Xylenes	ND		0.50	ug/L			07/13/22 17:24	1
m-Dichlorobenzene (1,3-DCB)	ND		0.50	ug/L			07/13/22 17:24	1
Methyl-tert-butyl Ether (MTBE)	ND		0.50	ug/L			07/13/22 17:24	1
Naphthalene	ND		0.50	ug/L			07/13/22 17:24	1
n-Butylbenzene	ND		0.50	ug/L			07/13/22 17:24	1
N-Propylbenzene	ND		0.50	ug/L			07/13/22 17:24	1
o-Dichlorobenzene (1,2-DCB)	ND		0.50	ug/L			07/13/22 17:24	1
o-Chlorotoluene	ND		0.50	ug/L			07/13/22 17:24	1
o-Xylene	ND		0.50	ug/L			07/13/22 17:24	1

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MB 380-8830/8
Matrix: Water
Analysis Batch: 8830

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
p-Chlorotoluene	ND		0.50	ug/L			07/13/22 17:24	1
p-Dichlorobenzene (1,4-DCB)	ND		0.50	ug/L			07/13/22 17:24	1
p-Isopropyltoluene	ND		0.50	ug/L			07/13/22 17:24	1
sec-Butylbenzene	ND		0.50	ug/L			07/13/22 17:24	1
Styrene	ND		0.50	ug/L			07/13/22 17:24	1
Tert-amyl methyl ether	ND		3.0	ug/L			07/13/22 17:24	1
Tert-butyl ethyl ether	ND		3.0	ug/L			07/13/22 17:24	1
tert-Butylbenzene	ND		0.50	ug/L			07/13/22 17:24	1
Tetrachloroethene (PCE)	ND		0.50	ug/L			07/13/22 17:24	1
Toluene	ND		0.50	ug/L			07/13/22 17:24	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			07/13/22 17:24	1
Xylenes, Total	ND		0.50	ug/L			07/13/22 17:24	1
trans-1,2-Dichloroethylene	ND		0.50	ug/L			07/13/22 17:24	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/13/22 17:24	1
Trichloroethylene (TCE)	ND		0.50	ug/L			07/13/22 17:24	1
Trichlorofluoromethane (Freon 11)	ND		0.50	ug/L			07/13/22 17:24	1
Vinyl Chloride (VC)	ND		0.30	ug/L			07/13/22 17:24	1
Trichlorotrifluoroethane	ND		0.50	ug/L			07/13/22 17:24	1
Bromoethane	ND		0.50	ug/L			07/13/22 17:24	1
Chloromethane (methyl chloride)	ND		0.50	ug/L			07/13/22 17:24	1
Diisopropyl ether	ND		3.0	ug/L			07/13/22 17:24	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Tentatively Identified Compound</i>	None		ug/L					07/13/22 17:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		07/13/22 17:24	1
4-Bromofluorobenzene (Surr)	97		70 - 130		07/13/22 17:24	1
Toluene-d8 (Surr)	93		70 - 130		07/13/22 17:24	1

Lab Sample ID: LCS 380-8830/5
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	5.00	4.24		ug/L		85	70 - 130
1,1,1-Trichloroethane	5.00	4.14		ug/L		83	70 - 130
1,1,1,2,2-Tetrachloroethane	5.00	4.62		ug/L		92	70 - 130
1,1,1,2-Trichloroethane	5.00	4.42		ug/L		88	70 - 130
1,1-Dichloroethane	5.00	4.86		ug/L		97	70 - 130
1,1-Dichlorethylene	5.00	4.50		ug/L		90	70 - 130
1,1-Dichloropropene	5.00	4.65		ug/L		93	70 - 130
1,2,3-Trichlorobenzene	5.00	5.29		ug/L		106	70 - 130
1,2,3-Trichloropropane	5.00	4.52		ug/L		90	70 - 130
1,2,4-Trichlorobenzene	5.00	4.88		ug/L		98	70 - 130
1,2,4-Trimethy benzene	5.00	4.75		ug/L		95	70 - 130
1,2-Dichloroethane	5.00	4.57		ug/L		91	70 - 130
1,2-Dichloropropane	5.00	4.42		ug/L		88	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCS 380-8830/5

Matrix: Water

Analysis Batch: 8830

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethy benzene	5.00	4.74		ug/L		95	70 - 130
1,3-Dichloropropane	5.00	4.51		ug/L		90	70 - 130
2,2-Dichloropropane	5.00	4.87		ug/L		97	70 - 130
2-Butanone (MEK)	50.0	53.1		ug/L		106	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	51.8		ug/L		104	70 - 130
Acetone	50.0	53.2	J	ug/L		106	70 - 130
Benzene	5.00	4.57		ug/L		91	70 - 130
Bromobenzene	5.00	4.51		ug/L		90	70 - 130
Bromochloromethane	5.00	4.48		ug/L		90	70 - 130
Bromodichloromethane	5.00	4.13		ug/L		83	70 - 130
Bromoform	5.00	3.73		ug/L		75	70 - 130
Bromomethane (Methyl Bromide)	5.00	4.92		ug/L		98	70 - 130
Carbon disulfide	5.00	4.49		ug/L		90	70 - 130
Carbon tetrachloride	5.00	4.32		ug/L		86	70 - 130
Chlorobenzene	5.00	4.83		ug/L		97	70 - 130
Chlorodibromomethane	5.00	3.98		ug/L		80	70 - 130
Dichloromethane	5.00	5.03		ug/L		101	70 - 130
cis-1,3-Dichloropropene	5.00	3.94		ug/L		79	70 - 130
Ethylbenzene	5.00	4.66		ug/L		93	70 - 130
Hexachlorobutadiene	5.00	4.81		ug/L		96	70 - 130
Isopropyl benzene	5.00	4.79		ug/L		96	70 - 130
m,p-Xylenes	10.0	10.1		ug/L		101	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	4.86		ug/L		97	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.94		ug/L		99	70 - 130
Naphthalene	5.00	4.84		ug/L		97	70 - 130
n-Butylbenzene	5.00	4.98		ug/L		100	70 - 130
N-Propylbenzene	5.00	4.69		ug/L		94	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	5.14		ug/L		103	70 - 130
o-Chlorotoluene	5.00	4.82		ug/L		96	70 - 130
o-Xylene	5.00	4.53		ug/L		91	70 - 130
p-Chlorotoluene	5.00	4.92		ug/L		98	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	4.90		ug/L		98	70 - 130
p-Isopropyltoluene	5.00	5.02		ug/L		100	70 - 130
sec-Butylbenzene	5.00	4.97		ug/L		99	70 - 130
Styrene	5.00	4.58		ug/L		92	70 - 130
Tert-amyl methyl ether	5.00	4.66		ug/L		93	70 - 130
Tert-butyl ethyl ether	5.00	5.19		ug/L		104	70 - 130
tert-Butylbenzene	5.00	4.91		ug/L		98	70 - 130
Tetrachloroethene (PCE)	5.00	4.65		ug/L		93	70 - 130
Toluene	5.00	4.85		ug/L		97	70 - 130
1,3-Dichloropropene, Total	10.0	7.93		ug/L		79	70 - 130
Xylenes, Total	15.0	14.6		ug/L		98	70 - 130
trans-1,2-Dichloroethylene	5.00	4.72		ug/L		94	70 - 130
trans-1,3-Dichloropropene	5.00	3.99		ug/L		80	70 - 130
Trichloroethylene (TCE)	5.00	4.51		ug/L		90	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.70		ug/L		94	70 - 130
Vinyl Chloride (VC)	5.00	4.18		ug/L		84	70 - 130
Trichlorotrifluoroethane	5.00	5.90		ug/L		118	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCS 380-8830/5
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromoethane	5.00	5.03		ug/L		101	70 - 130
Diisopropyl ether	5.00	5.02		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 380-8830/6
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	4.13		ug/L		83	70 - 130	2	20
1,1,1-Trichloroethane	5.00	4.27		ug/L		85	70 - 130	3	20
1,1,2,2-Tetrachloroethane	5.00	4.79		ug/L		96	70 - 130	3	20
1,1,2-Trichloroethane	5.00	4.20		ug/L		84	70 - 130	5	20
1,1-Dichloroethane	5.00	4.89		ug/L		98	70 - 130	1	20
1,1-Dichlorethylene	5.00	4.62		ug/L		92	70 - 130	3	20
1,1-Dichloropropene	5.00	4.58		ug/L		92	70 - 130	1	20
1,2,3-Trichlorobenzene	5.00	5.25		ug/L		105	70 - 130	1	20
1,2,3-Trichloropropane	5.00	4.50		ug/L		90	70 - 130	0	20
1,2,4-Trichlorobenzene	5.00	4.74		ug/L		95	70 - 130	3	20
1,2,4-Trimethy benzene	5.00	4.95		ug/L		99	70 - 130	4	20
1,2-Dichloroethane	5.00	4.43		ug/L		89	70 - 130	3	20
1,2-Dichloropropane	5.00	4.03		ug/L		81	70 - 130	9	20
1,3,5-Trimethy benzene	5.00	4.88		ug/L		98	70 - 130	3	20
1,3-Dichloropropane	5.00	4.27		ug/L		85	70 - 130	6	20
2,2-Dichloropropane	5.00	4.70		ug/L		94	70 - 130	4	20
2-Butanone (MEK)	50.0	49.9		ug/L		100	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	50.0	49.5		ug/L		99	70 - 130	5	20
Acetone	50.0	52.9	J	ug/L		106	70 - 130	1	20
Benzene	5.00	4.46		ug/L		89	70 - 130	2	20
Bromobenzene	5.00	4.52		ug/L		90	70 - 130	0	20
Bromochloromethane	5.00	4.48		ug/L		90	70 - 130	0	20
Bromodichloromethane	5.00	3.91		ug/L		78	70 - 130	5	20
Bromoform	5.00	3.81		ug/L		76	70 - 130	2	20
Bromomethane (Methyl Bromide)	5.00	4.85		ug/L		97	70 - 130	1	20
Carbon disulfide	5.00	4.45		ug/L		89	70 - 130	1	20
Carbon tetrachloride	5.00	4.30		ug/L		86	70 - 130	1	20
Chlorobenzene	5.00	4.53		ug/L		91	70 - 130	6	20
Chlorodibromomethane	5.00	3.71		ug/L		74	70 - 130	7	20
Dichloromethane	5.00	5.03		ug/L		101	70 - 130	0	20
cis-1,3-Dichloropropene	5.00	3.71		ug/L		74	70 - 130	6	20
Ethylbenzene	5.00	4.48		ug/L		90	70 - 130	4	20
Hexachlorobutadiene	5.00	4.69		ug/L		94	70 - 130	3	20
Isopropy benzene	5.00	4.88		ug/L		98	70 - 130	2	20
m,p-Xylenes	10.0	9.40		ug/L		94	70 - 130	7	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCSD 380-8830/6
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Dichlorobenzene (1,3-DCB)	5.00	4.87		ug/L		97	70 - 130	0	20
Methyl-tert-butyl Ether (MTBE)	5.00	5.08		ug/L		102	70 - 130	3	20
Naphthalene	5.00	5.06		ug/L		101	70 - 130	4	20
n-Butylbenzene	5.00	4.74		ug/L		95	70 - 130	5	20
N-Propylbenzene	5.00	4.50		ug/L		90	70 - 130	4	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.81		ug/L		96	70 - 130	7	20
o-Chlorotoluene	5.00	4.87		ug/L		97	70 - 130	1	20
o-Xylene	5.00	4.34		ug/L		87	70 - 130	4	20
p-Chlorotoluene	5.00	4.65		ug/L		93	70 - 130	6	20
p-Dichlorobenzene (1,4-DCB)	5.00	4.95		ug/L		99	70 - 130	1	20
p-Isopropyltoluene	5.00	5.29		ug/L		106	70 - 130	5	20
sec-Butylbenzene	5.00	5.09		ug/L		102	70 - 130	2	20
Styrene	5.00	4.40		ug/L		88	70 - 130	4	20
Tert-amyl methyl ether	5.00	4.51		ug/L		90	70 - 130	3	20
Tert-butyl ethyl ether	5.00	5.02		ug/L		100	70 - 130	3	20
tert-Butylbenzene	5.00	4.80		ug/L		96	70 - 130	2	20
Tetrachloroethene (PCE)	5.00	4.40		ug/L		88	70 - 130	6	20
Toluene	5.00	4.53		ug/L		91	70 - 130	7	20
1,3-Dichloropropene, Total	10.0	7.41		ug/L		74	70 - 130	7	20
Xylenes, Total	15.0	13.7		ug/L		92	70 - 130	6	20
trans-1,2-Dichloroethylene	5.00	5.01		ug/L		100	70 - 130	6	20
trans-1,3-Dichloropropene	5.00	3.70		ug/L		74	70 - 130	7	20
Trichloroethylene (TCE)	5.00	4.16		ug/L		83	70 - 130	8	20
Trichlorofluoromethane (Freon 11)	5.00	4.64		ug/L		93	70 - 130	1	20
Vinyl Chloride (VC)	5.00	3.99		ug/L		80	70 - 130	5	20
Trichlorotrifluoroethane	5.00	5.84		ug/L		117	70 - 130	1	20
Bromoethane	5.00	5.20		ug/L		104	70 - 130	3	20
Diisopropyl ether	5.00	4.97		ug/L		99	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: MRL 380-8830/3
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
m,p-Xylenes	0.500	ND		ug/L		96	50 - 150
Xylenes, Total	0.500	ND		ug/L		96	50 - 150
Vinyl Chloride (VC)	0.250	0.314		ug/L		126	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8830/4
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	ND		ug/L		78	50 - 150
1,1,1-Trichloroethane	0.500	ND		ug/L		82	50 - 150
1,1,2,2-Tetrachloroethane	0.500	ND		ug/L		92	50 - 150
1,1,2-Trichloroethane	0.500	ND		ug/L		86	50 - 150
1,1-Dichloroethane	0.500	ND		ug/L		90	50 - 150
1,1-Dichlorethylene	0.500	ND		ug/L		98	50 - 150
1,1-Dichloropropene	0.500	ND		ug/L		89	50 - 150
1,2,3-Trichlorobenzene	0.500	ND		ug/L		98	50 - 150
1,2,3-Trichloropropane	0.500	ND		ug/L		95	50 - 150
1,2,4-Trichlorobenzene	0.500	ND		ug/L		87	50 - 150
1,2,4-Trimethy benzene	0.500	ND		ug/L		73	50 - 150
1,2-Dichloroethane	0.500	ND		ug/L		89	50 - 150
1,2-Dichloropropane	0.500	ND		ug/L		91	50 - 150
1,3,5-Trimethy benzene	0.500	ND		ug/L		76	50 - 150
1,3-Dichloropropane	0.500	ND		ug/L		93	50 - 150
2,2-Dichloropropane	0.500	ND		ug/L		91	50 - 150
2-Butanone (MEK)	5.00	ND		ug/L		99	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	ND		ug/L		83	50 - 150
Acetone	5.00	ND		ug/L		137	50 - 150
Benzene	0.500	ND		ug/L		87	50 - 150
Bromobenzene	0.500	ND		ug/L		90	50 - 150
Bromochloromethane	0.500	ND		ug/L		92	50 - 150
Bromodichloromethane	0.500	ND		ug/L		92	50 - 150
Bromoform	0.500	ND		ug/L		70	50 - 150
Bromomethane (Methyl Bromide)	0.500	ND		ug/L		92	50 - 150
Carbon disulfide	0.500	ND		ug/L		84	50 - 150
Carbon tetrachloride	0.500	ND		ug/L		79	50 - 150
Chlorobenzene	0.500	ND		ug/L		82	50 - 150
Chlorodibromomethane	0.500	ND		ug/L		72	50 - 150
Dichloromethane	0.500	ND		ug/L		98	50 - 150
cis-1,3-Dichloropropene	0.500	ND		ug/L		78	50 - 150
Ethylbenzene	0.500	ND		ug/L		76	50 - 150
Hexachlorobutadiene	0.500	ND		ug/L		94	50 - 150
Isopropyl benzene	0.500	ND		ug/L		78	50 - 150
m,p-Xylenes	1.00	0.743		ug/L		74	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	ND		ug/L		92	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	ND		ug/L		91	50 - 150
Naphthalene	0.500	ND		ug/L		88	50 - 150
n-Butylbenzene	0.500	ND		ug/L		82	50 - 150
N-Propylbenzene	0.500	ND		ug/L		77	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	ND		ug/L		87	50 - 150
o-Chlorotoluene	0.500	ND		ug/L		81	50 - 150
o-Xylene	0.500	ND		ug/L		75	50 - 150
p-Chlorotoluene	0.500	ND		ug/L		76	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	ND		ug/L		86	50 - 150
p-Isopropyltoluene	0.500	ND		ug/L		76	50 - 150
sec-Butylbenzene	0.500	ND		ug/L		77	50 - 150
Styrene	0.500	ND		ug/L		66	50 - 150

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8830/4
Matrix: Water
Analysis Batch: 8830

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Tert-amyl methyl ether	0.500	ND		ug/L		78	50 - 150
Tert-butyl ethyl ether	0.500	ND		ug/L		93	50 - 150
tert-Butylbenzene	0.500	ND		ug/L		79	50 - 150
Tetrachloroethene (PCE)	0.500	ND		ug/L		88	50 - 150
Toluene	0.500	ND		ug/L		89	50 - 150
1,3-Dichloropropene, Total	1.00	0.773		ug/L		77	50 - 150
Xylenes, Total	1.50	1.12		ug/L		75	50 - 150
trans-1,2-Dichloroethylene	0.500	ND		ug/L		96	50 - 150
trans-1,3-Dichloropropene	0.500	ND		ug/L		76	50 - 150
Trichloroethylene (TCE)	0.500	ND		ug/L		90	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	ND		ug/L		83	50 - 150
Vinyl Chloride (VC)	0.500	0.406		ug/L		81	50 - 150
Trichlorotrifluoroethane	0.500	ND		ug/L		98	50 - 150
Bromoethane	0.500	ND		ug/L		89	50 - 150
Diisopropyl ether	0.500	ND		ug/L		93	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	96		70 - 130

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

Lab Sample ID: MB 380-8671/5
Matrix: Water
Analysis Batch: 8671

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	ND		2.0	ug/L			07/12/22 20:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		07/12/22 20:23	1
4-Bromofluorobenzene (Surr)	96		70 - 130		07/12/22 20:23	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		07/12/22 20:23	1

Lab Sample ID: LCS 380-8671/2
Matrix: Water
Analysis Batch: 8671

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tertiary Butyl Alcohol (TBA)	5.00	5.71		ug/L		114	70 - 130

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

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCSD 380-8671/3
Matrix: Water
Analysis Batch: 8671

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Tertiary Butyl Alcohol (TBA)	5.00	5.25		ug/L		105	70 - 130	9	20
Surrogate	%Recovery	LCSD	LCSD Qualifier	Limits					
Toluene-d8 (Surr)	104			70 - 130					
4-Bromofluorobenzene (Surr)	98			70 - 130					
1,2-Dichloroethane-d4 (Surr)	98			70 - 130					

Lab Sample ID: MRL 380-8671/4
Matrix: Water
Analysis Batch: 8671

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Tertiary Butyl Alcohol (TBA)	2.00	2.25		ug/L		112	50 - 150		
Surrogate	%Recovery	MRL	MRL Qualifier	Limits					
Toluene-d8 (Surr)	102			50 - 150					
4-Bromofluorobenzene (Surr)	97			50 - 150					
1,2-Dichloroethane-d4 (Surr)	100			50 - 150					

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

Lab Sample ID: MB 380-8530/1-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8530

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
2,4'-DDE	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
2,4'-DDT	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
2,4-Dinitrotoluene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
2,6-Dinitrotoluene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
4,4'-DDD	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
4,4'-DDE	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
4,4'-DDT	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Acenaphthene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Acenaphthylene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Acetochlor	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Alachlor	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
alpha-BHC	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
alpha-Chlordane	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Anthracene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 15:41	1
Atrazine	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Benz(a)anthracene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Benzo[a]pyrene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 15:41	1
Benzo[b]fluoranthene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 15:41	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Benzo[k]fluoranthene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 15:41	1
beta-BHC	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MB 380-8530/1-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8530

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		07/12/22 09:57	08/02/22 15:41	1
Bromacil	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Butachlor	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Butylbenzylphthalate	ND		0.50	ug/L		07/12/22 09:57	08/02/22 15:41	1
Caffeine	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Chlorobenzilate	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Chloroneb	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Chlorpyrifos	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Chrysene	ND		0.020	ug/L		07/12/22 09:57	08/02/22 15:41	1
delta-BHC	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		07/12/22 09:57	08/02/22 15:41	1
Diazinon (Qualitative)	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Diclorvos (DDVP)	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Dieldrin	ND		0.20	ug/L		07/12/22 09:57	08/02/22 15:41	1
Diethylphthalate	ND		0.50	ug/L		07/12/22 09:57	08/02/22 15:41	1
Dimethoate	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Dimethylphthalate	ND		0.50	ug/L		07/12/22 09:57	08/02/22 15:41	1
Di-n-butyl phthalate	ND		0.99	ug/L		07/12/22 09:57	08/02/22 15:41	1
Di-n-octyl phthalate	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Endosulfan I (Alpha)	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Endosulfan II (Beta)	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Endosulfan sulfate	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Endrin	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Endrin aldehyde	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
EPTC	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Fluoranthene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Fluorene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
gamma-BHC (Lindane)	ND		0.040	ug/L		07/12/22 09:57	08/02/22 15:41	1
gamma-Chlordane	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Heptachlor	ND		0.040	ug/L		07/12/22 09:57	08/02/22 15:41	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Hexachlorobenzene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Isophorone	ND		0.50	ug/L		07/12/22 09:57	08/02/22 15:41	1
Malathion	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Methoxychlor	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Metolachlor	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Metribuzin	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Molinate	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Naphthalene	ND		0.30	ug/L		07/12/22 09:57	08/02/22 15:41	1
Parathion	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Phenanthrene	ND		0.040	ug/L		07/12/22 09:57	08/02/22 15:41	1
Propachlor	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Pyrene	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Simazine	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MB 380-8530/1-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8530

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Terbacil	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Terbutylazine	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
Thiobencarb	ND		0.20	ug/L		07/12/22 09:57	08/02/22 15:41	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		07/12/22 09:57	08/02/22 15:41	1
trans-Nonachlor	ND		0.050	ug/L		07/12/22 09:57	08/02/22 15:41	1
Trifluralin	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
1-Methylnaphthalene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1
2-Methylnaphthalene	ND		0.099	ug/L		07/12/22 09:57	08/02/22 15:41	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				07/12/22 09:57	08/02/22 15:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	114		70 - 130	07/12/22 09:57	08/02/22 15:41	1
Perylene-d12	87		70 - 130	07/12/22 09:57	08/02/22 15:41	1
Triphenylphosphate	100		70 - 130	07/12/22 09:57	08/02/22 15:41	1

Lab Sample ID: LCS 380-8530/3-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.99	2.11		ug/L		106	70 - 130
2,4'-DDE	1.99	2.09		ug/L		105	70 - 130
2,4'-DDT	1.99	2.13		ug/L		107	70 - 130
2,4-Dinitrotoluene	1.99	1.52		ug/L		76	70 - 130
2,6-Dinitrotoluene	1.99	1.65		ug/L		83	70 - 130
4,4'-DDD	1.99	2.22		ug/L		111	70 - 130
4,4'-DDE	1.99	2.17		ug/L		109	70 - 130
4,4'-DDT	1.99	2.22		ug/L		111	70 - 130
Acenaphthene	1.99	2.07		ug/L		104	70 - 130
Acenaphthylene	1.99	1.90		ug/L		95	70 - 130
Acetochlor	1.99	2.29		ug/L		115	70 - 130
Alachlor	1.99	2.26		ug/L		113	70 - 130
alpha-BHC	1.99	1.85		ug/L		93	70 - 130
alpha-Chlordane	1.99	1.88		ug/L		95	70 - 130
Anthracene	1.99	1.97		ug/L		99	70 - 130
Atrazine	1.99	2.35		ug/L		118	70 - 130
Benz(a)anthracene	1.99	2.15		ug/L		108	70 - 130
Benzo[a]pyrene	1.99	1.82		ug/L		91	70 - 130
Benzo[b]fluoranthene	1.99	1.90		ug/L		95	70 - 130
Benzo[g,h,i]perylene	1.99	1.91		ug/L		96	70 - 130
Benzo[k]fluoranthene	1.99	1.90		ug/L		95	70 - 130
beta-BHC	1.99	1.93		ug/L		97	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.44		ug/L		123	70 - 130
Bromacil	1.99	1.93		ug/L		97	70 - 130
Butachlor	1.99	2.31		ug/L		116	70 - 130
Butylbenzylphthalate	1.99	2.63	*+	ug/L		132	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCS 380-8530/3-A

Matrix: Water

Analysis Batch: 11144

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8530

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Caffeine	1.99	0.738	*-	ug/L		37	45 - 137
Chlorobenzilate	1.99	2.40		ug/L		120	70 - 130
Chloroneb	1.99	2.13		ug/L		107	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.32		ug/L		117	70 - 130
Chlorpyrifos	1.99	2.19		ug/L		110	70 - 130
Chrysene	1.99	1.99		ug/L		100	70 - 130
delta-BHC	1.99	1.84		ug/L		92	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.45		ug/L		123	70 - 130
Diazinon (Qualitative)	1.99	1.64		ug/L		82	15 - 132
Dibenz(a,h)anthracene	1.99	1.85		ug/L		93	70 - 130
Diclorvos (DDVP)	1.99	2.07		ug/L		104	70 - 130
Dieldrin	1.99	2.12		ug/L		106	70 - 130
Diethylphthalate	1.99	1.83		ug/L		92	70 - 130
Dimethoate	1.99	0.632	*-	ug/L		32	35 - 100
Dimethylphthalate	1.99	2.16		ug/L		109	70 - 130
Di-n-butyl phthalate	3.98	4.31		ug/L		108	70 - 130
Di-n-octyl phthalate	1.99	1.96		ug/L		99	70 - 130
Endosulfan I (Alpha)	1.99	2.03		ug/L		102	70 - 130
Endosulfan II (Beta)	1.99	2.54		ug/L		127	70 - 130
Endosulfan sulfate	1.99	2.64	*+	ug/L		132	70 - 130
Endrin	1.99	2.21		ug/L		111	70 - 130
Endrin aldehyde	1.99	2.37		ug/L		119	70 - 130
EPTC	1.99	2.18		ug/L		109	70 - 130
Fluoranthene	1.99	2.16		ug/L		108	70 - 130
Fluorene	1.99	1.92		ug/L		96	70 - 130
gamma-BHC (Lindane)	1.99	1.83		ug/L		92	70 - 130
gamma-Chlordane	1.99	2.40		ug/L		121	70 - 130
Heptachlor	1.99	2.02		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.17		ug/L		109	70 - 130
Hexachlorobenzene	1.99	1.77		ug/L		89	70 - 130
Hexachlorocyclopentadiene	1.99	2.09		ug/L		105	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	1.87		ug/L		94	70 - 130
Isophorone	1.99	2.22		ug/L		112	70 - 130
Malathion	1.99	2.30		ug/L		116	70 - 130
Methoxychlor	1.99	2.28		ug/L		114	70 - 130
Metolachlor	1.99	2.19		ug/L		110	70 - 130
Metribuzin	1.99	1.87		ug/L		94	70 - 130
Molinate	1.99	2.28		ug/L		115	70 - 130
Naphthalene	1.99	2.02		ug/L		101	70 - 130
Parathion	1.99	2.22		ug/L		111	70 - 130
Pendimethalin (Penoxaline)	1.99	2.16		ug/L		108	70 - 130
Phenanthrene	1.99	1.99		ug/L		100	70 - 130
Propachlor	1.99	1.90		ug/L		96	70 - 130
Pyrene	1.99	2.18		ug/L		109	70 - 130
Simazine	1.99	1.89		ug/L		95	70 - 130
Terbacil	1.99	1.99		ug/L		100	70 - 130
Terbutylazine	1.99	2.01		ug/L		101	70 - 130
Thiobencarb	1.99	2.13		ug/L		107	70 - 130
trans-Nonachlor	1.99	2.05		ug/L		103	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCS 380-8530/3-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trifluralin	1.99	1.79		ug/L		90	70 - 130
1-Methylnaphthalene	1.99	1.95		ug/L		98	70 - 130
2-Methylnaphthalene	1.99	2.00		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	104		70 - 130
Perylene-d12	85		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: LCSD 380-8530/4-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.98	1.87		ug/L		94	70 - 130	12	20
2,4'-DDE	1.98	2.16		ug/L		109	70 - 130	3	20
2,4'-DDT	1.98	1.92		ug/L		97	70 - 130	10	20
2,4-Dinitrotoluene	1.98	2.11	*1	ug/L		107	70 - 130	33	20
2,6-Dinitrotoluene	1.98	2.14	*1	ug/L		108	70 - 130	25	20
4,4'-DDD	1.98	1.95		ug/L		98	70 - 130	13	20
4,4'-DDE	1.98	1.94		ug/L		98	70 - 130	11	20
4,4'-DDT	1.98	1.93		ug/L		97	70 - 130	14	20
Acenaphthene	1.98	2.14		ug/L		108	70 - 130	4	20
Acenaphthylene	1.98	2.10		ug/L		106	70 - 130	10	20
Acetochlor	1.98	2.66	*+	ug/L		134	70 - 130	15	20
Alachlor	1.98	2.48		ug/L		125	70 - 130	10	20
alpha-BHC	1.98	2.10		ug/L		106	70 - 130	13	20
alpha-Chlordane	1.98	1.71		ug/L		86	70 - 130	10	20
Anthracene	1.98	2.15		ug/L		109	70 - 130	9	20
Atrazine	1.98	2.26		ug/L		114	70 - 130	4	20
Benz(a)anthracene	1.98	1.84		ug/L		93	70 - 130	15	20
Benzo[a]pyrene	1.98	1.87		ug/L		94	70 - 130	3	20
Benzo[b]fluoranthene	1.98	2.00		ug/L		101	70 - 130	5	20
Benzo[g,h,i]perylene	1.98	1.95		ug/L		98	70 - 130	2	20
Benzo[k]fluoranthene	1.98	2.06		ug/L		104	70 - 130	8	20
beta-BHC	1.98	2.39	*1	ug/L		120	70 - 130	21	20
Bis(2-ethylhexyl) phthalate	1.98	1.80	*1	ug/L		91	70 - 130	30	20
Bromacil	1.98	2.55	*1	ug/L		128	70 - 130	28	20
Butachlor	1.98	2.51		ug/L		127	70 - 130	9	20
Butylbenzylphthalate	1.98	2.12	*1	ug/L		107	70 - 130	22	20
Caffeine	1.98	1.46	*1	ug/L		74	45 - 137	66	20
Chlorobenzilate	1.98	2.14		ug/L		108	70 - 130	11	20
Chloroneb	1.98	2.11		ug/L		106	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	1.98	2.44		ug/L		123	70 - 130	5	20
Chlorpyrifos	1.98	2.15		ug/L		108	70 - 130	2	20
Chrysene	1.98	2.10		ug/L		106	70 - 130	5	20
delta-BHC	1.98	2.20		ug/L		111	70 - 130	18	20
Di(2-ethylhexyl)adipate	1.98	1.95	*1	ug/L		99	70 - 130	22	20

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCSD 380-8530/4-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diazinon (Qualitative)	1.98	2.09	*1	ug/L		105	15 - 132	24	20
Dibenz(a,h)anthracene	1.98	1.96		ug/L		99	70 - 130	6	20
Diclorvos (DDVP)	1.98	2.20		ug/L		111	70 - 130	6	20
Dieldrin	1.98	1.90		ug/L		96	70 - 130	11	20
Diethylphthalate	1.98	2.19		ug/L		111	70 - 130	18	20
Dimethoate	1.98	1.50	*1	ug/L		75	35 - 100	81	20
Dimethylphthalate	1.98	2.41		ug/L		121	70 - 130	11	20
Di-n-butyl phthalate	3.97	4.61		ug/L		116	70 - 130	7	20
Di-n-octyl phthalate	1.98	1.82		ug/L		92	70 - 130	8	20
Endosulfan I (Alpha)	1.98	1.78		ug/L		90	70 - 130	13	20
Endosulfan II (Beta)	1.98	2.03	*1	ug/L		102	70 - 130	22	20
Endosulfan sulfate	1.98	2.06	*1	ug/L		104	70 - 130	25	20
Endrin	1.98	2.00		ug/L		101	70 - 130	10	20
Endrin aldehyde	1.98	1.97		ug/L		99	70 - 130	18	20
EPTC	1.98	2.17		ug/L		109	70 - 130	1	20
Fluoranthene	1.98	2.08		ug/L		105	70 - 130	4	20
Fluorene	1.98	2.23		ug/L		112	70 - 130	15	20
gamma-BHC (Lindane)	1.98	2.24		ug/L		113	70 - 130	20	20
gamma-Chlordane	1.98	2.16		ug/L		109	70 - 130	11	20
Heptachlor	1.98	2.14		ug/L		108	70 - 130	6	20
Heptachlor epoxide (isomer B)	1.98	2.06		ug/L		104	70 - 130	5	20
Hexachlorobenzene	1.98	1.81		ug/L		91	70 - 130	2	20
Hexachlorocyclopentadiene	1.98	2.04		ug/L		103	70 - 130	2	20
Indeno[1,2,3-cd]pyrene	1.98	1.90		ug/L		96	70 - 130	1	20
Isophorone	1.98	2.14		ug/L		108	70 - 130	4	20
Malathion	1.98	2.48		ug/L		125	70 - 130	8	20
Methoxychlor	1.98	2.00		ug/L		101	70 - 130	13	20
Metolachlor	1.98	2.26		ug/L		114	70 - 130	3	20
Metribuzin	1.98	2.22		ug/L		112	70 - 130	17	20
Molinate	1.98	2.37		ug/L		119	70 - 130	4	20
Naphthalene	1.98	2.01		ug/L		101	70 - 130	0	20
Parathion	1.98	2.49		ug/L		125	70 - 130	11	20
Pendimethalin (Penoxaline)	1.98	2.16		ug/L		109	70 - 130	0	20
Phenanthrene	1.98	2.07		ug/L		104	70 - 130	4	20
Propachlor	1.98	2.35	*1	ug/L		118	70 - 130	21	20
Pyrene	1.98	1.99		ug/L		100	70 - 130	9	20
Simazine	1.98	2.22		ug/L		112	70 - 130	16	20
Terbacil	1.98	2.71	*+ *1	ug/L		136	70 - 130	31	20
Terbutylazine	1.98	2.14		ug/L		108	70 - 130	6	20
Thiobencarb	1.98	2.21		ug/L		112	70 - 130	4	20
trans-Nonachlor	1.98	1.91		ug/L		97	70 - 130	7	20
Trifluralin	1.98	1.91		ug/L		96	70 - 130	6	20
1-Methylnaphthalene	1.98	1.88		ug/L		95	70 - 130	4	20
2-Methylnaphthalene	1.98	1.90		ug/L		96	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	105		70 - 130
Perylene-d12	88		70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCSD 380-8530/4-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8530

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Triphenylphosphate	96		70 - 130

Lab Sample ID: MRL 380-8530/2-A
Matrix: Water
Analysis Batch: 11144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0995	0.139		ug/L		139	50 - 150
2,4'-DDE	0.0995	0.102		ug/L		103	50 - 150
2,4'-DDT	0.0995	0.0966	J	ug/L		97	50 - 150
2,4-Dinitrotoluene	0.0995	0.103		ug/L		104	50 - 150
2,6-Dinitrotoluene	0.0995	0.117		ug/L		117	50 - 150
4,4'-DDD	0.0995	0.114		ug/L		114	50 - 150
4,4'-DDE	0.0995	0.113		ug/L		114	50 - 150
4,4'-DDT	0.0995	0.0990	J	ug/L		99	50 - 150
Acenaphthene	0.0995	0.0938	J	ug/L		94	50 - 150
Acenaphthylene	0.0995	0.0938	J	ug/L		94	50 - 150
Acetochlor	0.0498	0.0371	J	ug/L		74	50 - 150
Alachlor	0.0498	0.0593		ug/L		119	50 - 150
alpha-BHC	0.0995	0.103		ug/L		103	50 - 150
alpha-Chlordane	0.0498	0.0438	J	ug/L		88	50 - 150
Anthracene	0.0199	0.0196	J	ug/L		99	50 - 150
Atrazine	0.0498	0.0530		ug/L		106	50 - 150
Benz(a)anthracene	0.0498	0.0655		ug/L		132	50 - 150
Benzo[a]pyrene	0.0199	0.0202		ug/L		101	50 - 150
Benzo[b]fluoranthene	0.0199	0.0191	J	ug/L		96	50 - 150
Benzo[g,h,i]perylene	0.0498	0.0474	J	ug/L		95	50 - 150
Benzo[k]fluoranthene	0.0199	0.0186	J	ug/L		94	50 - 150
beta-BHC	0.0995	0.109		ug/L		110	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.826		ug/L		138	50 - 150
Bromacil	0.0995	0.118		ug/L		119	50 - 150
Butachlor	0.0498	0.0563		ug/L		113	50 - 150
Butylbenzylphthalate	0.149	0.223	J	ug/L		149	50 - 150
Caffeine	0.0498	0.0267	J	ug/L		54	50 - 150
Chlorobenzilate	0.0995	0.149		ug/L		150	50 - 150
Chloroneb	0.0995	0.111		ug/L		112	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0995	0.101		ug/L		101	50 - 150
Chlorpyrifos	0.0498	0.0511		ug/L		103	50 - 150
Chrysene	0.0199	0.0244		ug/L		123	50 - 150
delta-BHC	0.0995	0.118		ug/L		118	50 - 150
Di(2-ethylhexyl)adipate	0.299	0.392	J	ug/L		131	50 - 150
Diazinon (Qualitative)	0.0995	0.0748	J	ug/L		75	15 - 132
Dibenz(a,h)anthracene	0.0498	0.0441	J	ug/L		89	50 - 150
Diclorvos (DDVP)	0.0498	0.0524		ug/L		105	50 - 150
Dieldrin	0.0995	0.121	J	ug/L		122	50 - 150
Diethylphthalate	0.149	0.163	J	ug/L		109	50 - 150
Dimethoate	0.0995	0.0658	J	ug/L		66	35 - 100
Dimethylphthalate	0.299	0.365	J	ug/L		122	50 - 150

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8530/2-A

Matrix: Water

Analysis Batch: 11144

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8530

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	0.299	0.374	J	ug/L		125	50 - 150
Di-n-octyl phthalate	0.0995	0.121		ug/L		122	50 - 150
Endosulfan I (Alpha)	0.0995	0.115		ug/L		116	50 - 150
Endosulfan II (Beta)	0.0995	0.151	^3+	ug/L		151	50 - 150
Endosulfan sulfate	0.0995	0.106		ug/L		106	50 - 150
Endrin	0.0995	0.117		ug/L		118	50 - 150
Endrin aldehyde	0.0995	0.110		ug/L		111	50 - 150
EPTC	0.0995	0.108		ug/L		108	50 - 150
Fluoranthene	0.0498	0.0553	J	ug/L		111	50 - 150
Fluorene	0.0498	ND		ug/L		95	50 - 150
gamma-BHC (Lindane)	0.0498	0.0448		ug/L		90	50 - 150
gamma-Chlordane	0.0498	0.0626		ug/L		126	50 - 150
Heptachlor	0.0398	0.0424		ug/L		107	50 - 150
Heptachlor epoxide (isomer B)	0.0498	0.0500		ug/L		100	50 - 150
Hexachlorobenzene	0.0498	0.0517		ug/L		104	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0503		ug/L		101	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	0.0466	J	ug/L		94	50 - 150
Isophorone	0.0995	0.117	J	ug/L		118	50 - 150
Malathion	0.0995	0.105		ug/L		106	50 - 150
Methoxychlor	0.0995	0.127		ug/L		128	50 - 150
Metolachlor	0.0498	0.0511		ug/L		103	50 - 150
Metribuzin	0.0498	0.0462	J	ug/L		93	50 - 150
Molinate	0.0995	0.0987	J	ug/L		99	50 - 150
Naphthalene	0.0995	0.115	J	ug/L		116	50 - 150
Parathion	0.0995	0.124		ug/L		125	50 - 150
Pendimethalin (Penoxaline)	0.0995	0.115		ug/L		116	50 - 150
Phenanthrene	0.0199	0.0231	J	ug/L		116	50 - 150
Propachlor	0.0498	0.0558		ug/L		112	50 - 150
Pyrene	0.0498	0.0538		ug/L		108	50 - 150
Simazine	0.0498	0.0417	J	ug/L		84	50 - 150
Terbacil	0.0995	0.129		ug/L		129	50 - 150
Terbutylazine	0.0995	0.105		ug/L		106	50 - 150
Thiobencarb	0.0995	0.114	J	ug/L		114	50 - 150
trans-Nonachlor	0.0498	0.0507		ug/L		102	50 - 150
Trifluralin	0.0995	0.0747	J	ug/L		75	50 - 150
1-Methylnaphthalene	0.0995	0.112		ug/L		113	50 - 150
2-Methylnaphthalene	0.0995	0.107		ug/L		108	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	116		70 - 130
Perylene-d12	89		70 - 130
Triphenylphosphate	110		70 - 130

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7411-O-1-A MS

Matrix: Water

Analysis Batch: 11144

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8530

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		1.99	1.97		ug/L		99	70 - 130
2,4'-DDE	ND		1.99	2.00		ug/L		100	70 - 130
2,4'-DDT	ND		1.99	1.91		ug/L		96	70 - 130
2,4-Dinitrotoluene	ND	*1	1.99	2.31		ug/L		116	70 - 130
2,6-Dinitrotoluene	ND	*1	1.99	2.24		ug/L		112	70 - 130
4,4'-DDD	ND		1.99	1.96		ug/L		99	70 - 130
4,4'-DDE	ND		1.99	2.04		ug/L		103	70 - 130
4,4'-DDT	ND		1.99	1.95		ug/L		98	70 - 130
Acenaphthene	ND		1.99	2.15		ug/L		108	70 - 130
Acenaphthylene	ND		1.99	2.22		ug/L		112	70 - 130
Acetochlor	ND	*+ F1	1.99	2.71	F1	ug/L		136	70 - 130
Alachlor	ND		1.99	2.51		ug/L		126	70 - 130
alpha-BHC	ND		1.99	2.18		ug/L		110	70 - 130
alpha-Chlordane	ND		1.99	1.79		ug/L		90	70 - 130
Anthracene	ND		1.99	2.20		ug/L		110	70 - 130
Atrazine	ND		1.99	2.28		ug/L		115	70 - 130
Benz(a)anthracene	ND		1.99	1.86		ug/L		93	70 - 130
Benzo[a]pyrene	ND		1.99	1.86		ug/L		93	70 - 130
Benzo[b]fluoranthene	ND		1.99	1.87		ug/L		94	70 - 130
Benzo[g,h,i]perylene	ND	F1	1.99	1.25	F1	ug/L		63	70 - 130
Benzo[k]fluoranthene	ND		1.99	1.96		ug/L		98	70 - 130
beta-BHC	ND	*1	1.99	2.40		ug/L		121	70 - 130
Bis(2-ethylhexyl) phthalate	ND	*1	1.99	2.30		ug/L		116	70 - 130
Bromacil	ND	*1 F1	1.99	2.84	F1	ug/L		143	70 - 130
Butachlor	ND	F1	1.99	2.65	F1	ug/L		133	70 - 130
Butylbenzylphthalate	ND	*+ *1	1.99	2.59		ug/L		130	70 - 130
Caffeine	ND	*- *1	1.99	1.92		ug/L		97	46 - 144
Chlorobenzilate	ND	F1	1.99	2.94	F1	ug/L		148	70 - 130
Chloroneb	ND		1.99	2.08		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.99	2.39		ug/L		120	70 - 130
Chlorpyrifos	ND		1.99	2.18		ug/L		110	70 - 130
Chrysene	ND		1.99	2.03		ug/L		102	70 - 130
delta-BHC	ND		1.99	2.19		ug/L		110	70 - 130
Di(2-ethylhexyl)adipate	ND	*1	1.99	2.34		ug/L		117	70 - 130
Diazinon (Qualitative)	ND	*1	1.99	2.28		ug/L		114	15 - 132
Dibenz(a,h)anthracene	ND		1.99	2.30		ug/L		115	70 - 130
Diclorvos (DDVP)	ND		1.99	2.40		ug/L		121	70 - 130
Dieldrin	ND		1.99	2.14		ug/L		107	70 - 130
Diethylphthalate	ND		1.99	2.29		ug/L		103	70 - 130
Dimethoate	ND	*- *1	1.99	1.98		ug/L		100	34 - 111
Dimethylphthalate	ND		1.99	1.95		ug/L		98	70 - 130
Di-n-butyl phthalate	ND		3.98	5.05		ug/L		113	70 - 130
Di-n-octyl phthalate	ND		1.99	2.21		ug/L		111	70 - 130
Endosulfan I (Alpha)	ND		1.99	2.12		ug/L		107	70 - 130
Endosulfan II (Beta)	ND	*1 ^3+	1.99	2.38		ug/L		120	70 - 130
Endosulfan sulfate	ND	*+ *1	1.99	2.20		ug/L		111	70 - 130
Endrin	ND	F1	1.99	2.61	F1	ug/L		131	70 - 130
Endrin aldehyde	ND		1.99	2.08		ug/L		105	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7411-O-1-A MS

Matrix: Water

Analysis Batch: 11144

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8530

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
EPTC	ND		1.99	2.24		ug/L		113	70 - 130
Fluoranthene	ND		1.99	2.14		ug/L		107	70 - 130
Fluorene	ND		1.99	2.21		ug/L		111	70 - 130
gamma-BHC (Lindane)	ND		1.99	2.29		ug/L		115	70 - 130
gamma-Chlordane	ND		1.99	2.22		ug/L		112	70 - 130
Heptachlor	ND		1.99	2.19		ug/L		110	70 - 130
Heptachlor epoxide (isomer B)	ND		1.99	2.13		ug/L		107	70 - 130
Hexachlorobenzene	ND		1.99	1.84		ug/L		92	70 - 130
Hexachlorocyclopentadiene	ND		1.99	2.13		ug/L		107	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.99	2.25		ug/L		113	70 - 130
Isophorone	ND		1.99	2.13		ug/L		107	70 - 130
Malathion	ND		1.99	2.48		ug/L		125	70 - 130
Methoxychlor	ND		1.99	2.11		ug/L		106	70 - 130
Metolachlor	ND		1.99	2.25		ug/L		113	70 - 130
Metribuzin	ND		1.99	2.10		ug/L		105	70 - 130
Molinate	ND		1.99	2.33		ug/L		117	70 - 130
Naphthalene	ND		1.99	1.85		ug/L		93	70 - 130
Parathion	ND	F1	1.99	2.60	F1	ug/L		131	70 - 130
Pendimethalin (Penoxaline)	ND		1.99	2.21		ug/L		111	70 - 130
Phenanthrene	ND		1.99	2.08		ug/L		105	70 - 130
Propachlor	ND	*1	1.99	2.47		ug/L		124	70 - 130
Pyrene	ND		1.99	2.09		ug/L		105	70 - 130
Simazine	ND		1.99	2.27		ug/L		114	70 - 130
Terbacil	ND	** *1	1.99	2.53		ug/L		127	70 - 130
Terbutylazine	ND		1.99	2.18		ug/L		110	70 - 130
Thiobencarb	ND		1.99	2.17		ug/L		109	70 - 130
trans-Nonachlor	ND		1.99	1.96		ug/L		98	70 - 130
Trifluralin	ND		1.99	2.13		ug/L		107	70 - 130
1-Methylnaphthalene	ND		1.99	2.13		ug/L		107	70 - 130
2-Methylnaphthalene	ND		1.99	2.15		ug/L		108	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: 380-7775-1 DU

Matrix: Drinking Water

Analysis Batch: 11144

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Prep Type: Total/NA

Prep Batch: 8530

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
2,4'-DDD	ND		ND		ug/L		NC	20	
2,4'-DDE	ND		ND		ug/L		NC	20	
2,4'-DDT	ND		ND		ug/L		NC	20	
2,4-Dinitrotoluene	ND	*1	ND	*1	ug/L		NC	20	
2,6-Dinitrotoluene	ND	*1	ND	*1	ug/L		NC	20	
4,4'-DDD	ND		ND		ug/L		NC	20	
4,4'-DDE	ND		ND		ug/L		NC	20	

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7775-1 DU
Matrix: Drinking Water
Analysis Batch: 11144

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
4,4'-DDT	ND		ND		ug/L		NC	20
Acenaphthene	ND		ND		ug/L		NC	20
Acenaphthylene	ND		ND		ug/L		NC	20
Acetochlor	ND	*+	ND	*+	ug/L		NC	20
Alachlor	ND		ND		ug/L		NC	20
alpha-BHC	ND		ND		ug/L		NC	20
alpha-Chlordane	ND		ND		ug/L		NC	20
Anthracene	ND		ND		ug/L		NC	20
Atrazine	ND		ND		ug/L		NC	20
Benz(a)anthracene	ND		ND		ug/L		NC	20
Benzo[a]pyrene	ND		ND		ug/L		NC	20
Benzo[b]fluoranthene	ND		ND		ug/L		NC	20
Benzo[g,h,i]perylene	ND		ND		ug/L		NC	20
Benzo[k]fluoranthene	ND		ND		ug/L		NC	20
beta-BHC	ND	*1	ND	*1	ug/L		NC	20
Bis(2-ethylhexyl) phthalate	ND	*1	ND	*1	ug/L		NC	20
Bromacil	ND	*1	ND	*1	ug/L		NC	20
Butachlor	ND		ND		ug/L		NC	20
Butylbenzylphthalate	ND	*+ *1	ND	*+ *1	ug/L		NC	20
Caffeine	ND	*- *1	ND	*- *1	ug/L		NC	20
Chlorobenzilate	ND		ND		ug/L		NC	20
Chloroneb	ND		ND		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	ND		ND		ug/L		NC	20
Chlorpyrifos	ND		ND		ug/L		NC	20
Chrysene	ND		ND		ug/L		NC	20
delta-BHC	ND		ND		ug/L		NC	20
Di(2-ethylhexyl)adipate	ND	*1	ND	*1	ug/L		NC	20
Diazinon (Qualitative)	ND	*1	ND	*1	ug/L		NC	20
Dibenz(a,h)anthracene	ND		ND		ug/L		NC	20
Diclorvos (DDVP)	ND		ND		ug/L		NC	20
Dieldrin	ND		ND		ug/L		NC	20
Diethylphthalate	ND		ND		ug/L		NC	20
Dimethoate	ND	*- *1	ND	*- *1	ug/L		NC	20
Dimethylphthalate	ND		ND		ug/L		NC	20
Di-n-butyl phthalate	ND		ND		ug/L		NC	20
Di-n-octyl phthalate	ND		ND		ug/L		NC	20
Endosulfan I (Alpha)	ND		ND		ug/L		NC	20
Endosulfan II (Beta)	ND	*1 ^3+	ND	*1	ug/L		NC	20
Endosulfan sulfate	ND	*+ *1	ND	*+ *1	ug/L		NC	20
Endrin	ND		ND		ug/L		NC	20
Endrin aldehyde	ND		ND		ug/L		NC	20
EPTC	ND		ND		ug/L		NC	20
Fluoranthene	ND		ND		ug/L		NC	20
Fluorene	ND		ND		ug/L		NC	20
gamma-BHC (Lindane)	ND		ND		ug/L		NC	20
gamma-Chlordane	ND		ND		ug/L		NC	20
Heptachlor	ND		ND		ug/L		NC	20
Heptachlor epoxide (isomer B)	ND		ND		ug/L		NC	20
Hexachlorobenzene	ND		ND		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7775-1 DU
Matrix: Drinking Water
Analysis Batch: 11144

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 8530

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Hexachlorocyclopentadiene	ND		ND		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	ND		ND		ug/L		NC	20
Isophorone	ND		ND		ug/L		NC	20
Malathion	ND		ND		ug/L		NC	20
Methoxychlor	ND		ND		ug/L		NC	20
Metolachlor	ND		ND		ug/L		NC	20
Metribuzin	ND		ND		ug/L		NC	20
Molinate	ND		ND		ug/L		NC	20
Naphthalene	ND		ND		ug/L		NC	20
Parathion	ND		ND		ug/L		NC	20
Pendimethalin (Penoxaline)	ND		ND		ug/L		NC	20
Phenanthrene	ND		ND		ug/L		NC	20
Propachlor	ND	*1	ND	*1	ug/L		NC	20
Pyrene	ND		ND		ug/L		NC	20
Simazine	ND		ND		ug/L		NC	20
Terbacil	ND	** *1	ND	** *1	ug/L		NC	20
Terbutylazine	ND		ND		ug/L		NC	20
Thiobencarb	ND		ND		ug/L		NC	20
Total Permethrin (mixed isomers)	ND	** *1	ND	** *1	ug/L		NC	20
trans-Nonachlor	ND		ND		ug/L		NC	20
Trifluralin	ND		ND		ug/L		NC	20
1-Methylnaphthalene	ND		ND		ug/L		NC	20
2-Methylnaphthalene	ND		ND		ug/L		NC	20
		DU	DU					
Surrogate	%Recovery	Qualifier	Limits					
2-Nitro-m-xylene	105		70 - 130					
Perylene-d12	87		70 - 130					
Triphenylphosphate	105		70 - 130					

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

Lab Sample ID: MB 380-8421/4-A
Matrix: Water
Analysis Batch: 9761

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8421

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2,3-Trichloropropane	ND		0.040	ug/L		07/11/22 11:30	07/12/22 09:35	1
1,2-D bromo-3-Chloropropane	ND		0.010	ug/L		07/11/22 11:30	07/12/22 09:35	1
1,2-D bromoethane	ND		0.010	ug/L		07/11/22 11:30	07/12/22 09:35	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	95		60 - 140			07/11/22 11:30	07/12/22 09:35	1

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8421/1-A
Matrix: Water
Analysis Batch: 9761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8421

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0400	0.0443		ug/L		111	60 - 140
Surrogate	%Recovery	MRL	Qualifier	Limits			
1,2-Dibromopropane (Surr)	98			60 - 140			

Lab Sample ID: MRL 380-8421/2-A
Matrix: Water
Analysis Batch: 9761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8421

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0546		ug/L		109	60 - 140
1,2-D bromo-3-Chloropropane	0.0100	0.0107		ug/L		107	60 - 140
1,2-D bromoethane	0.0100	0.0107		ug/L		107	60 - 140
Surrogate	%Recovery	MRL	Qualifier	Limits			
1,2-Dibromopropane (Surr)	97			60 - 140			

Lab Sample ID: 380-7126-E-1-A MS
Matrix: Water
Analysis Batch: 9761

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		1.25	1.20		ug/L		96	65 - 135
1,2-D bromo-3-Chloropropane	ND		0.250	0.225		ug/L		90	65 - 135
1,2-D bromoethane	ND		0.250	0.237		ug/L		95	65 - 135
Surrogate	%Recovery	MS	MS	Qualifier	Limits				
1,2-Dibromopropane (Surr)	93				60 - 140				

Lab Sample ID: 380-7641-C-1-A DU
Matrix: Water
Analysis Batch: 9761

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8421

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1,2,3-Trichloropropane	ND		ND		ug/L		NC	20
1,2-D bromo-3-Chloropropane	ND		ND		ug/L		17	20
1,2-D bromoethane	ND		ND		ug/L		NC	20
Surrogate	%Recovery	DU	DU	Qualifier	Limits			
1,2-Dibromopropane (Surr)	102				60 - 140			

QC Sample Results

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

Job ID: 380-7775-1

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 380-8665/7-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8665

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Aldrin	ND		0.0020	ug/L		07/12/22 18:00	07/12/22 23:20	1
Dieldrin	ND		0.0020	ug/L		07/12/22 18:00	07/12/22 23:20	1
Toxaphene	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
Alachlor	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
Chlordane (n.o.s.)	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
Endrin	ND		0.010	ug/L		07/12/22 18:00	07/12/22 23:20	1
Heptachlor	ND		0.010	ug/L		07/12/22 18:00	07/12/22 23:20	1
Heptachlor epoxide	ND		0.010	ug/L		07/12/22 18:00	07/12/22 23:20	1
gamma-BHC (Lindane)	ND		0.010	ug/L		07/12/22 18:00	07/12/22 23:20	1
Methoxychlor	ND		0.050	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1016	ND		0.070	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1221	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1232	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1242	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1248	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1254	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1
PCB-1260	ND		0.070	ug/L		07/12/22 18:00	07/12/22 23:20	1
Polychlorinated biphenyls, Total	ND		0.10	ug/L		07/12/22 18:00	07/12/22 23:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	112		70 - 130	07/12/22 18:00	07/12/22 23:20	1

Lab Sample ID: MRL 380-8665/2-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Aldrin	0.00200	0.00220		ug/L		110	50 - 150
Dieldrin	0.00200	0.00280		ug/L		140	50 - 150

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

Lab Sample ID: MRL 380-8665/3-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Aldrin	0.0100	0.0125		ug/L		125	50 - 150
Dieldrin	0.0100	0.0139		ug/L		139	50 - 150
Alachlor	0.100	0.111		ug/L		111	50 - 150
Endrin	0.0100	0.0116		ug/L		116	50 - 150
Heptachlor	0.0100	0.0121		ug/L		121	50 - 150
Heptachlor epoxide	0.0100	0.0116		ug/L		116	50 - 150
gamma-BHC (Lindane)	0.0100	0.0117		ug/L		117	50 - 150
Methoxychlor	0.0500	0.0604		ug/L		121	50 - 150

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8665/3-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

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

Lab Sample ID: MRL 380-8665/4-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

<i>Analyte</i>	<i>Spike Added</i>	<i>MRL Result</i>	<i>MRL Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Toxaphene	0.100	0.116		ug/L		116	50 - 150

<i>Surrogate</i>	<i>%Recovery</i>	<i>MRL Qualifier</i>	<i>MRL Limits</i>
<i>Tetrachloro-m-xylene</i>	103		70 - 130

Lab Sample ID: MRL 380-8665/5-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

<i>Analyte</i>	<i>Spike Added</i>	<i>MRL Result</i>	<i>MRL Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Toxaphene	0.500	0.599		ug/L		120	50 - 150

<i>Surrogate</i>	<i>%Recovery</i>	<i>MRL Qualifier</i>	<i>MRL Limits</i>
<i>Tetrachloro-m-xylene</i>	101		70 - 130

Lab Sample ID: MRL 380-8665/6-A
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8665

<i>Analyte</i>	<i>Spike Added</i>	<i>MRL Result</i>	<i>MRL Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Chlordane (n.o.s.)	0.100	0.123		ug/L		123	50 - 150

<i>Surrogate</i>	<i>%Recovery</i>	<i>MRL Qualifier</i>	<i>MRL Limits</i>
<i>Tetrachloro-m-xylene</i>	104		70 - 130

Lab Sample ID: 380-7028-K-1-B MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Aldrin	ND		0.0197	0.0230		ug/L		117	65 - 135
Dieldrin	ND		0.0197	0.0265		ug/L		134	65 - 135
Alachlor	ND		0.197	0.254		ug/L		129	65 - 135
Endrin	ND		0.0197	0.0251		ug/L		127	65 - 135
Heptachlor	ND		0.0197	0.0235		ug/L		119	65 - 135
Heptachlor epoxide	ND		0.0197	0.0255		ug/L		129	65 - 135
gamma-BHC (Lindane)	ND		0.0197	0.0240		ug/L		122	65 - 135
Methoxychlor	ND		0.0986	0.119		ug/L		120	65 - 135

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7028-K-1-B MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

	<i>MS</i>	<i>MS</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
Tetrachloro- <i>m</i> -xylene	107		70 - 130

Lab Sample ID: 380-7028-K-1-C MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Toxaphene	ND		2.40	2.75		ug/L		114	65 - 135

	<i>MS</i>	<i>MS</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
Tetrachloro- <i>m</i> -xylene	108		70 - 130

Lab Sample ID: 380-7028-K-1-D MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Chlordane (n.o.s.)	ND		0.489	0.550		ug/L		113	65 - 135

	<i>MS</i>	<i>MS</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
Tetrachloro- <i>m</i> -xylene	109		70 - 130

Lab Sample ID: 380-8712-C-1-A MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Aldrin	ND		0.101	0.0952		ug/L		94	65 - 135
Dieldrin	ND		0.101	0.112		ug/L		111	65 - 135
Alachlor	ND		1.01	1.08		ug/L		107	65 - 135
Endrin	ND		0.101	0.110		ug/L		109	65 - 135
Heptachlor	ND		0.101	0.0987		ug/L		98	65 - 135
Heptachlor epoxide	ND		0.101	0.112		ug/L		111	65 - 135
gamma-BHC (Lindane)	ND		0.101	0.104		ug/L		103	65 - 135
Methoxychlor	ND		0.504	0.512		ug/L		101	65 - 135

	<i>MS</i>	<i>MS</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
Tetrachloro- <i>m</i> -xylene	103		70 - 130

Lab Sample ID: 380-8712-D-1-A MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Toxaphene	ND		2.51	2.66		ug/L		106	65 - 135

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-8712-D-1-A MS
Matrix: Water
Analysis Batch: 10520

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 8665

Surrogate	%Recovery	MS MS Qualifier	Limits
Tetrachloro-m-xylene	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-10985/4
Matrix: Water
Analysis Batch: 10985

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L			07/08/22 17:30	1
Sulfate	ND		0.25	mg/L			07/08/22 17:30	1

Lab Sample ID: LCS 380-10985/7
Matrix: Water
Analysis Batch: 10985

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.1		mg/L		104	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Lab Sample ID: LCSD 380-10985/8
Matrix: Water
Analysis Batch: 10985

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	26.3		mg/L		105	90 - 110	1	20
Sulfate	50.0	52.3		mg/L		105	90 - 110	1	20

Lab Sample ID: MRL 380-10985/5
Matrix: Water
Analysis Batch: 10985

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	ND		mg/L		107	50 - 150
Sulfate	0.250	ND		mg/L		95	50 - 150

Lab Sample ID: MRL 380-10985/6
Matrix: Water
Analysis Batch: 10985

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	ND		mg/L		99	50 - 150
Sulfate	1.00	0.954		mg/L		95	50 - 150

Lab Sample ID: 380-8553-E-3 MS
Matrix: Water
Analysis Batch: 10985

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.1		12.5	22.7		mg/L		117	80 - 120

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QC Sample Results

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

Job ID: 380-7775-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-8553-E-3 MS
Matrix: Water
Analysis Batch: 10985

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
Sulfate	4.7		25.0	33.5		mg/L		115	80 - 120

Lab Sample ID: 380-8553-E-3 MSD
Matrix: Water
Analysis Batch: 10985

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.1		12.5	22.7		mg/L		117	80 - 120	0	20
Sulfate	4.7		25.0	33.4		mg/L		115	80 - 120	0	20

Lab Sample ID: MB 380-10986/4
Matrix: Water
Analysis Batch: 10986

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	mg/L			07/08/22 17:30	1
Nitrate Nitrite as N	ND		0.050	mg/L			07/08/22 17:30	1
Nitrite as N	ND		0.050	mg/L			07/08/22 17:30	1

Lab Sample ID: LCS 380-10986/7
Matrix: Water
Analysis Batch: 10986

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	2.49		mg/L		99	90 - 110
Nitrate Nitrite as N	3.50	3.54		mg/L		101	90 - 110
Nitrite as N	1.00	1.05		mg/L		105	90 - 110

Lab Sample ID: LCSD 380-10986/8
Matrix: Water
Analysis Batch: 10986

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	2.50		mg/L		100	90 - 110	1	20
Nitrate Nitrite as N	3.50	3.56		mg/L		102	90 - 110	1	20
Nitrite as N	1.00	1.06		mg/L		106	90 - 110	0	20

Lab Sample ID: MRL 380-10986/5
Matrix: Water
Analysis Batch: 10986

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	0.0108	J	mg/L		86	50 - 150
Nitrate Nitrite as N	0.0250	0.0237	J	mg/L		95	50 - 150
Nitrite as N	0.0125	0.0129	J	mg/L		103	50 - 150

QC Sample Results

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

Job ID: 380-7775-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-10986/6
Matrix: Water
Analysis Batch: 10986

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	0.0471	J	mg/L		94	50 - 150
Nitrate Nitrite as N	0.100	0.100		mg/L		100	50 - 150
Nitrite as N	0.0500	0.0529		mg/L		106	50 - 150

Lab Sample ID: 380-8981-F-1 MS
Matrix: Water
Analysis Batch: 10986

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	8.4	F1	2.50	12.0	F1	mg/L		146	80 - 120
Nitrate Nitrite as N	8.4	F1	3.50	13.5	F1	mg/L		145	80 - 120
Nitrite as N	ND	F1	1.00	1.47	F1	mg/L		147	80 - 120

Lab Sample ID: 380-8981-F-1 MSD
Matrix: Water
Analysis Batch: 10986

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	8.4	F1	2.50	12.0	F1	mg/L		145	80 - 120	0	20
Nitrate Nitrite as N	8.4	F1	3.50	13.5	F1	mg/L		145	80 - 120	0	20
Nitrite as N	ND	F1	1.00	1.46	F1	mg/L		146	80 - 120	1	20

Lab Sample ID: MB 380-9291/2
Matrix: Water
Analysis Batch: 9291

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	ug/L			07/15/22 13:21	1

Lab Sample ID: MB 380-9291/38
Matrix: Water
Analysis Batch: 9291

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	ug/L			07/16/22 06:00	1

Lab Sample ID: LCS 380-9291/39
Matrix: Water
Analysis Batch: 9291

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	101		ug/L		101	90 - 110

Lab Sample ID: LCSD 380-9291/40
Matrix: Water
Analysis Batch: 9291

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	100	99.3		ug/L		99	90 - 110	2	10

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QC Sample Results

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

Job ID: 380-7775-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-9291/37
Matrix: Water
Analysis Batch: 9291

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	ND		ug/L		91	75 - 125

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 380-9139/52
Matrix: Water
Analysis Batch: 9139

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1.0	mg/L			07/14/22 18:50	1
Magnesium	ND		0.10	mg/L			07/14/22 18:50	1
Potassium	ND		1.0	mg/L			07/14/22 18:50	1
Sodium	ND		1.0	mg/L			07/14/22 18:50	1

Lab Sample ID: LCS 380-9139/54
Matrix: Water
Analysis Batch: 9139

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50.0	50.3		mg/L		101	85 - 115
Magnesium	20.0	19.7		mg/L		98	85 - 115
Potassium	20.0	19.8		mg/L		99	85 - 115
Sodium	50.0	49.0		mg/L		98	85 - 115

Lab Sample ID: LCSD 380-9139/55
Matrix: Water
Analysis Batch: 9139

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	50.1		mg/L		100	85 - 115	0	20
Magnesium	20.0	19.6		mg/L		98	85 - 115	0	20
Potassium	20.0	19.7		mg/L		98	85 - 115	0	20
Sodium	50.0	49.0		mg/L		98	85 - 115	0	20

Lab Sample ID: LLCS 380-9139/53
Matrix: Water
Analysis Batch: 9139

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	1.00	1.03		mg/L		103	50 - 150
Magnesium	0.100	0.101		mg/L		101	50 - 150
Potassium	1.00	0.654	J	mg/L		65	50 - 150
Sodium	1.00	1.06		mg/L		106	50 - 150

Lab Sample ID: 380-7699-B-1 MS
Matrix: Water
Analysis Batch: 9139

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	42		50.0	90.4		mg/L		97	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7699-B-1 MS
Matrix: Water
Analysis Batch: 9139

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	11		20.0	31.0		mg/L		100	70 - 130
Potassium	4.5		20.0	26.2		mg/L		109	70 - 130
Sodium	52		50.0	98.7		mg/L		94	70 - 130

Lab Sample ID: 380-7699-B-1 MSD
Matrix: Water
Analysis Batch: 9139

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	42		50.0	91.4		mg/L		99	70 - 130	1	20
Magnesium	11		20.0	31.2		mg/L		101	70 - 130	1	20
Potassium	4.5		20.0	26.3		mg/L		109	70 - 130	1	20
Sodium	52		50.0	99.1		mg/L		94	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 380-10532/1-A
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Arsenic	ND		1.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Beryllium	ND		1.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Cadmium	ND		0.50	ug/L		07/27/22 17:11	07/29/22 15:20	1
Chromium	ND		1.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Copper	ND		2.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Lead	ND		0.50	ug/L		07/27/22 17:11	07/29/22 15:20	1
Nickel	ND		5.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Selenium	ND		5.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Silver	ND		0.50	ug/L		07/27/22 17:11	07/29/22 15:20	1
Thallium	ND		1.0	ug/L		07/27/22 17:11	07/29/22 15:20	1
Zinc	ND		20	ug/L		07/27/22 17:11	07/29/22 15:20	1

Lab Sample ID: LCS 380-10532/3-A
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	51.4		ug/L		103	85 - 115
Arsenic	50.0	51.0		ug/L		102	85 - 115
Beryllium	25.0	25.0		ug/L		100	85 - 115
Cadmium	25.0	25.2		ug/L		101	85 - 115
Chromium	50.0	51.6		ug/L		103	85 - 115
Copper	50.0	51.8		ug/L		104	85 - 115
Lead	50.0	52.1		ug/L		104	85 - 115
Nickel	50.0	49.8		ug/L		100	85 - 115
Selenium	50.0	52.0		ug/L		104	85 - 115
Silver	25.0	25.1		ug/L		100	85 - 115
Thallium	50.0	50.7		ug/L		101	85 - 115

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: LCS 380-10532/3-A
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	50.0	51.3		ug/L		103	85 - 115

Lab Sample ID: LCSD 380-10532/4-A
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	50.5		ug/L		101	85 - 115	2	20
Arsenic	50.0	51.7		ug/L		103	85 - 115	1	20
Beryllium	25.0	25.3		ug/L		101	85 - 115	1	20
Cadmium	25.0	25.0		ug/L		100	85 - 115	1	20
Chromium	50.0	51.0		ug/L		102	85 - 115	1	20
Copper	50.0	52.8		ug/L		106	85 - 115	2	20
Lead	50.0	50.7		ug/L		101	85 - 115	3	20
Nickel	50.0	50.8		ug/L		102	85 - 115	2	20
Selenium	50.0	52.3		ug/L		105	85 - 115	1	20
Silver	25.0	24.8		ug/L		99	85 - 115	1	20
Thallium	50.0	49.6		ug/L		99	85 - 115	2	20
Zinc	50.0	51.9		ug/L		104	85 - 115	1	20

Lab Sample ID: LLCS 380-10532/2-A
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	1.06		ug/L		106	50 - 150
Arsenic	1.00	1.07		ug/L		107	50 - 150
Beryllium	1.00	1.06		ug/L		106	50 - 150
Cadmium	0.500	0.521		ug/L		104	50 - 150
Chromium	1.00	1.11		ug/L		111	50 - 150
Copper	2.00	2.20		ug/L		110	50 - 150
Lead	0.500	0.534		ug/L		107	50 - 150
Nickel	5.00	5.27		ug/L		105	50 - 150
Selenium	5.00	5.18		ug/L		104	50 - 150
Silver	0.500	0.490	J	ug/L		98	50 - 150
Thallium	1.00	1.05		ug/L		105	50 - 150
Zinc	20.0	21.5		ug/L		107	50 - 150

Lab Sample ID: 380-7177-B-1-B MS
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		50.0	52.9		ug/L		106	70 - 130
Arsenic	2.9		50.0	54.4		ug/L		103	70 - 130
Beryllium	ND		25.0	26.0		ug/L		104	70 - 130
Cadmium	ND		25.0	24.5		ug/L		98	70 - 130
Chromium	ND		50.0	49.8		ug/L		100	70 - 130
Copper	4.1		50.0	51.9		ug/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: 380-7177-B-1-B MS
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		50.0	48.2		ug/L		96	70 - 130
Nickel	ND		50.0	48.9		ug/L		94	70 - 130
Selenium	ND		50.0	53.1		ug/L		104	70 - 130
Silver	ND		25.0	23.2		ug/L		92	70 - 130
Thallium	ND		50.0	47.5		ug/L		95	70 - 130
Zinc	ND		50.0	59.9		ug/L		96	70 - 130

Lab Sample ID: 380-7177-B-1-C MSD
Matrix: Water
Analysis Batch: 11035

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 10532

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		50.0	53.6		ug/L		107	70 - 130	1	20
Arsenic	2.9		50.0	54.3		ug/L		103	70 - 130	0	20
Beryllium	ND		25.0	26.2		ug/L		105	70 - 130	1	20
Cadmium	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Chromium	ND		50.0	49.7		ug/L		99	70 - 130	0	20
Copper	4.1		50.0	52.2		ug/L		96	70 - 130	1	20
Lead	ND		50.0	48.7		ug/L		97	70 - 130	1	20
Nickel	ND		50.0	48.8		ug/L		94	70 - 130	0	20
Selenium	ND		50.0	52.9		ug/L		104	70 - 130	0	20
Silver	ND		25.0	23.5		ug/L		94	70 - 130	1	20
Thallium	ND		50.0	48.3		ug/L		97	70 - 130	2	20
Zinc	ND		50.0	59.3		ug/L		95	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-249942/1-A
Matrix: Water
Analysis Batch: 250070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 249942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		07/18/22 12:00	07/18/22 18:35	1

Lab Sample ID: LCS 570-249942/2-A
Matrix: Water
Analysis Batch: 250070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 249942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00800	0.00790		mg/L		99	85 - 115

Lab Sample ID: LCSD 570-249942/3-A
Matrix: Water
Analysis Batch: 250070

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 249942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00800	0.00796		mg/L		100	85 - 115	1	10

QC Sample Results

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

Job ID: 380-7775-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 380-7798-U-4-B MS
Matrix: Water
Analysis Batch: 250070

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 249942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00800	0.00783		mg/L		98	80 - 120

Lab Sample ID: 380-7798-U-4-C MSD
Matrix: Water
Analysis Batch: 250070

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 249942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	ND		0.00800	0.00779		mg/L		97	80 - 120	0	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-8531/40
Matrix: Water
Analysis Batch: 8531

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
A kalinity	ND		2.0	mg/L			07/11/22 20:18	1
Bicarbonate Alkalinity as CaCO3	2.06	B	2.0	mg/L			07/11/22 20:18	1
Carbonate Alkalinity as CaCO3	ND		2.0	mg/L			07/11/22 20:18	1

Lab Sample ID: MB 380-8531/7
Matrix: Water
Analysis Batch: 8531

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
A kalinity	ND		2.0	mg/L			07/11/22 15:29	1
Bicarbonate Alkalinity as CaCO3	2.01	B	2.0	mg/L			07/11/22 15:29	1
Carbonate Alkalinity as CaCO3	ND		2.0	mg/L			07/11/22 15:29	1

Lab Sample ID: LCS 380-8531/38
Matrix: Water
Analysis Batch: 8531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
A kalinity	100	97.2		mg/L		97	90 - 110

Lab Sample ID: LCSD 380-8531/55
Matrix: Water
Analysis Batch: 8531

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
A kalinity	100	98.6		mg/L		99	90 - 110	1	20

Lab Sample ID: LLCS 380-8531/39
Matrix: Water
Analysis Batch: 8531

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

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

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-7775-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MRL 380-8531/41
Matrix: Water
Analysis Batch: 8531

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
A kalinity	2.00	2.16		mg/L		108	50 - 150

Lab Sample ID: 380-7825-A-1 MS
Matrix: Water
Analysis Batch: 8531

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
A kalinity	85	F1	100	141	F1	mg/L		56	80 - 120

Lab Sample ID: 380-7825-A-1 MSD
Matrix: Water
Analysis Batch: 8531

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
A kalinity	85	F1	100	141	F1	mg/L		56	80 - 120	0	20

Lab Sample ID: 380-7825-A-1 DU
Matrix: Water
Analysis Batch: 8531

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
A kalinity	85	F1	85.2		mg/L		0.05	
Bicarbonate Alkalinity as CaCO3	85	B ^2	85.2	B	mg/L		0.05	
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-8532/36
Matrix: Water
Analysis Batch: 8532

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		2.0	umhos/cm			07/11/22 20:18	1

Lab Sample ID: LCS 380-8532/39
Matrix: Water
Analysis Batch: 8532

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	984		umhos/cm		98	90 - 110

Lab Sample ID: LCSD 380-8532/51
Matrix: Water
Analysis Batch: 8532

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	976		umhos/cm		98	90 - 110	1	10

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8532/37
Matrix: Water
Analysis Batch: 8532

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	2.00	2.10		umhos/cm		105	50 - 150

Lab Sample ID: MRL 380-8532/8
Matrix: Water
Analysis Batch: 8532

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	ND		umhos/cm		95	50 - 150

Lab Sample ID: 380-7825-A-1 DU
Matrix: Water
Analysis Batch: 8532

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	450	^2	447		umhos/cm		0	20

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

Lab Sample ID: MB 380-8511/1
Matrix: Water
Analysis Batch: 8511

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	mg/L			07/11/22 22:27	1

Lab Sample ID: HLCS 380-8511/5
Matrix: Water
Analysis Batch: 8511

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	718		mg/L		103	80 - 114

Lab Sample ID: LCS 380-8511/4
Matrix: Water
Analysis Batch: 8511

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	172		mg/L		98	80 - 114

Lab Sample ID: MRL 380-8511/2
Matrix: Water
Analysis Batch: 8511

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	ND		mg/L		90	50 - 150

QC Sample Results

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

Job ID: 380-7775-1

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

Lab Sample ID: MRL 380-8511/3
Matrix: Water
Analysis Batch: 8511

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	12.0		mg/L		120	50 - 150

Lab Sample ID: 380-11410-B-8 DU
Matrix: Water
Analysis Batch: 8511

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	310		302		mg/L		3	10

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-9368/6
Matrix: Water
Analysis Batch: 9368

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	mg/L			07/15/22 12:28	1

Lab Sample ID: LCS 380-9368/8
Matrix: Water
Analysis Batch: 9368

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	1.01		mg/L		101	90 - 110

Lab Sample ID: LCSD 380-9368/9
Matrix: Water
Analysis Batch: 9368

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	0.995		mg/L		99	90 - 110	2	10

Lab Sample ID: MRL 380-9368/7
Matrix: Water
Analysis Batch: 9368

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	ND		mg/L		94	50 - 150

Lab Sample ID: 380-7798-G-1 MS
Matrix: Water
Analysis Batch: 9368

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.068		1.00	1.08		mg/L		101	80 - 120

QC Sample Results

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

Job ID: 380-7775-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 380-7798-G-1 MSD
Matrix: Water
Analysis Batch: 9368

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.068		1.00	1.07		mg/L		100	80 - 120	0	20

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-8533/36
Matrix: Water
Analysis Batch: 8533

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.8			SU			07/11/22 20:18	1

Lab Sample ID: LCS 380-8533/37
Matrix: Water
Analysis Batch: 8533

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 380-8533/50
Matrix: Water
Analysis Batch: 8533

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: 380-7825-A-1 DU
Matrix: Water
Analysis Batch: 8533

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.0		8.0		SU		0.4	10

QC Association Summary

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

Job ID: 380-7775-1

GC/MS VOA

Analysis Batch: 8671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	524.2	
MB 380-8671/5	Method Blank	Total/NA	Water	524.2	
LCS 380-8671/2	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-8671/3	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-8671/4	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 8830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	524.2	
MB 380-8830/8	Method Blank	Total/NA	Water	524.2	
LCS 380-8830/5	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-8830/6	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-8830/3	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-8830/4	Lab Control Sample	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 8530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	
MB 380-8530/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-8530/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-8530/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-8530/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-7411-O-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-7775-1 DU	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	

Analysis Batch: 11144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	8530
MB 380-8530/1-A	Method Blank	Total/NA	Water	525.2	8530
LCS 380-8530/3-A	Lab Control Sample	Total/NA	Water	525.2	8530
LCSD 380-8530/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	8530
MRL 380-8530/2-A	Lab Control Sample	Total/NA	Water	525.2	8530
380-7411-O-1-A MS	Matrix Spike	Total/NA	Water	525.2	8530
380-7775-1 DU	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	8530

GC Semi VOA

Prep Batch: 8421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	504.1	
MB 380-8421/4-A	Method Blank	Total/NA	Water	504.1	
MRL 380-8421/1-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-8421/2-A	Lab Control Sample	Total/NA	Water	504.1	
380-7126-E-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-7641-C-1-A DU	Duplicate	Total/NA	Water	504.1	

Prep Batch: 8665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	505	
MB 380-8665/7-A	Method Blank	Total/NA	Water	505	

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QC Association Summary

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

Job ID: 380-7775-1

GC Semi VOA (Continued)

Prep Batch: 8665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-8665/2-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-8665/3-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-8665/4-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-8665/5-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-8665/6-A	Lab Control Sample	Total/NA	Water	505	
380-7028-K-1-B MS	Matrix Spike	Total/NA	Water	505	
380-7028-K-1-C MS	Matrix Spike	Total/NA	Water	505	
380-7028-K-1-D MS	Matrix Spike	Total/NA	Water	505	
380-8712-C-1-A MS	Matrix Spike	Total/NA	Water	505	
380-8712-D-1-A MS	Matrix Spike	Total/NA	Water	505	

Analysis Batch: 9761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	504.1	8421
MB 380-8421/4-A	Method Blank	Total/NA	Water	504.1	8421
MRL 380-8421/1-A	Lab Control Sample	Total/NA	Water	504.1	8421
MRL 380-8421/2-A	Lab Control Sample	Total/NA	Water	504.1	8421
380-7126-E-1-A MS	Matrix Spike	Total/NA	Water	504.1	8421
380-7641-C-1-A DU	Duplicate	Total/NA	Water	504.1	8421

Analysis Batch: 10520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	505	8665
MB 380-8665/7-A	Method Blank	Total/NA	Water	505	8665
MRL 380-8665/2-A	Lab Control Sample	Total/NA	Water	505	8665
MRL 380-8665/3-A	Lab Control Sample	Total/NA	Water	505	8665
MRL 380-8665/4-A	Lab Control Sample	Total/NA	Water	505	8665
MRL 380-8665/5-A	Lab Control Sample	Total/NA	Water	505	8665
MRL 380-8665/6-A	Lab Control Sample	Total/NA	Water	505	8665
380-7028-K-1-B MS	Matrix Spike	Total/NA	Water	505	8665
380-7028-K-1-C MS	Matrix Spike	Total/NA	Water	505	8665
380-7028-K-1-D MS	Matrix Spike	Total/NA	Water	505	8665
380-8712-C-1-A MS	Matrix Spike	Total/NA	Water	505	8665
380-8712-D-1-A MS	Matrix Spike	Total/NA	Water	505	8665

HPLC/IC

Analysis Batch: 9291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	300.0	
MB 380-9291/2	Method Blank	Total/NA	Water	300.0	
MB 380-9291/38	Method Blank	Total/NA	Water	300.0	
LCS 380-9291/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-9291/40	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-9291/37	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 10985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	300.0	
MB 380-10985/4	Method Blank	Total/NA	Water	300.0	
LCS 380-10985/7	Lab Control Sample	Total/NA	Water	300.0	

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-7775-1

HPLC/IC (Continued)

Analysis Batch: 10985 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 380-10985/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-10985/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-10985/6	Lab Control Sample	Total/NA	Water	300.0	
380-8553-E-3 MS	Matrix Spike	Total/NA	Water	300.0	
380-8553-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 10986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	300.0	
MB 380-10986/4	Method Blank	Total/NA	Water	300.0	
LCS 380-10986/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-10986/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-10986/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-10986/6	Lab Control Sample	Total/NA	Water	300.0	
380-8981-F-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-8981-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Analysis Batch: 9139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	200.7 Rev 4.4	
MB 380-9139/52	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-9139/54	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-9139/55	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-9139/53	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-7699-B-1 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-7699-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Prep Batch: 10532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total Recoverable	Drinking Water	200.8	
MB 380-10532/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 380-10532/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 380-10532/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 380-10532/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
380-7177-B-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
380-7177-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Analysis Batch: 11035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total Recoverable	Drinking Water	200.8	10532
MB 380-10532/1-A	Method Blank	Total Recoverable	Water	200.8	10532
LCS 380-10532/3-A	Lab Control Sample	Total Recoverable	Water	200.8	10532
LCSD 380-10532/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	10532
LLCS 380-10532/2-A	Lab Control Sample	Total Recoverable	Water	200.8	10532
380-7177-B-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	10532
380-7177-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	10532

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-7775-1

Metals

Prep Batch: 249942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	245.1	
MB 570-249942/1-A	Method Blank	Total/NA	Water	245.1	
LCS 570-249942/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 570-249942/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
380-7798-U-4-B MS	Matrix Spike	Total/NA	Water	245.1	
380-7798-U-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 250070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	245.1	249942
MB 570-249942/1-A	Method Blank	Total/NA	Water	245.1	249942
LCS 570-249942/2-A	Lab Control Sample	Total/NA	Water	245.1	249942
LCSD 570-249942/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	249942
380-7798-U-4-B MS	Matrix Spike	Total/NA	Water	245.1	249942
380-7798-U-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	249942

General Chemistry

Analysis Batch: 8511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	SM 2540C	
MB 380-8511/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-8511/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-8511/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-8511/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-8511/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-11410-B-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 8531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	SM 2320B	
MB 380-8531/40	Method Blank	Total/NA	Water	SM 2320B	
MB 380-8531/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-8531/38	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-8531/55	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-8531/39	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-8531/41	Lab Control Sample	Total/NA	Water	SM 2320B	
380-7825-A-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-7825-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-7825-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 8532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	SM 2510B	
MB 380-8532/36	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-8532/39	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-8532/51	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-8532/37	Lab Control Sample	Total/NA	Water	SM 2510B	
MRL 380-8532/8	Lab Control Sample	Total/NA	Water	SM 2510B	
380-7825-A-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Eurofins Eaton Monrovia

QC Association Summary

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

Job ID: 380-7775-1

General Chemistry

Analysis Batch: 8533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-8533/36	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-8533/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-8533/50	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-7825-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 9368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-7775-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	SM 4500 F C	
MB 380-9368/6	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-9368/8	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-9368/9	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-9368/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-7798-G-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-7798-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Lab Chronicle

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

Job ID: 380-7775-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-7775-1

Date Collected: 07/05/22 10:55

Matrix: Drinking Water

Date Received: 07/07/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	8830	P3EE	EA MON	07/13/22 23:32
Total/NA	Analysis	524.2		1	8671	P3EE	EA MON	07/13/22 00:21
Total/NA	Prep	525.2			8530	OTM3	EA MON	07/12/22 09:57
Total/NA	Analysis	525.2		1	11144	UJC9	EA MON	08/02/22 19:45
Total/NA	Prep	504.1			8421	K9GY	EA MON	07/12/22 08:50 - 07/12/22 09:25 ¹
Total/NA	Analysis	504.1		1	9761	K9GY	EA MON	07/12/22 14:37
Total/NA	Prep	505			8665	DR5R	EA MON	07/12/22 18:00 - 07/12/22 19:50 ¹
Total/NA	Analysis	505		1	10520	UGB2	EA MON	07/13/22 02:47
Total/NA	Analysis	300.0		1	9291	UNJR	EA MON	07/16/22 09:05
Total/NA	Analysis	300.0		5	10985	P6LW	EA MON	07/09/22 02:41
Total/NA	Analysis	300.0		5	10986	P6LW	EA MON	07/09/22 02:41
Total/NA	Analysis	200.7 Rev 4.4		1	9139	LK6J	EA MON	07/14/22 18:58
Total Recoverable	Prep	200.8			10532	NQM8	EA MON	07/27/22 17:11
Total Recoverable	Analysis	200.8		1	11035	DHX7	EA MON	07/29/22 16:15
Total/NA	Prep	245.1			249942	GYR8	EET CAL 4	07/18/22 12:00
Total/NA	Analysis	245.1		1	250070	UWCT	EET CAL 4	07/18/22 19:05
Total/NA	Analysis	SM 2320B		1	8531	D5MQ	EA MON	07/11/22 23:46
Total/NA	Analysis	SM 2510B		1	8532	D5MQ	EA MON	07/11/22 23:46
Total/NA	Analysis	SM 2540C		1	8511	XLG4	EA MON	07/11/22 22:27
Total/NA	Analysis	SM 4500 F C		1	9368	D5MQ	EA MON	07/15/22 13:21
Total/NA	Analysis	SM 4500 H+ B		1	8533	D5MQ	EA MON	07/11/22 23:46

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100

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

Accreditation/Certification Summary

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

Job ID: 380-7775-1

Laboratory: Eurofins Eaton Monrovia

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-23

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
300.0		Drinking Water	Nitrate Nitrite as N
505	505	Drinking Water	Polychlorinated biphenyls, Total
524.2		Drinking Water	1,3-Dichloropropene, Total
524.2		Drinking Water	2-Butanone (MEK)
524.2		Drinking Water	4-Methyl-2-pentanone (MIBK)
524.2		Drinking Water	Acetone
524.2		Drinking Water	Bromoethane
524.2		Drinking Water	m,p-Xylenes
524.2		Drinking Water	o-Xylene
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4'-DDT
525.2	525.2	Drinking Water	Acenaphthene
525.2	525.2	Drinking Water	Acenaphthylene
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	Anthracene
525.2	525.2	Drinking Water	Benz(a)anthracene
525.2	525.2	Drinking Water	Benzo[b]fluoranthene
525.2	525.2	Drinking Water	Benzo[g,h,i]perylene
525.2	525.2	Drinking Water	Benzo[k]fluoranthene
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Bromacil
525.2	525.2	Drinking Water	Butylbenzylphthalate
525.2	525.2	Drinking Water	Caffeine
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	Chrysene
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diazinon (Qualitative)
525.2	525.2	Drinking Water	Dibenz(a,h)anthracene
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Diethylphthalate
525.2	525.2	Drinking Water	Dimethoate
525.2	525.2	Drinking Water	Dimethylphthalate

Accreditation/Certification Summary

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

Job ID: 380-7775-1

Laboratory: Eurofins Eaton Monrovia (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	Di-n-butyl phthalate
525.2	525.2	Drinking Water	Di-n-octyl phthalate
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	Fluoranthene
525.2	525.2	Drinking Water	Fluorene
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Indeno[1,2,3-cd]pyrene
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Molinate
525.2	525.2	Drinking Water	Naphthalene
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Phenanthrene
525.2	525.2	Drinking Water	Pyrene
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Thiobencarb
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Drinking Water	Trifluralin
SM 2320B		Drinking Water	Bicarbonate Alkalinity as CaCO ₃
SM 2320B		Drinking Water	Carbonate Alkalinity as CaCO ₃

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-22
California	SCAQMD LAP	17LA0919	12-01-22
California	State	3082	07-31-22
Nevada	State	CA00111	07-31-22
Oregon	NELAP	4175	02-02-23
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-12-22

Method Summary

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

Job ID: 380-7775-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA MON
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	EA MON
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	EA MON
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA MON
300.0	Anions, Ion Chromatography	EPA	EA MON
200.7 Rev 4.4	Metals (ICP)	EPA	EA MON
200.8	Metals (ICP/MS)	EPA	EA MON
245.1	Mercury (CVAA)	EPA	EET CAL 4
SM 2320B	Alkalinity	SM	EA MON
SM 2510B	Conductivity, Specific Conductance	SM	EA MON
SM 2540C	Solids, Total Dissolved (TDS)	SM	EA MON
SM 4500 F C	Fluoride	SM	EA MON
SM 4500 H+ B	pH	SM	EA MON
200.8	Preparation, Total Recoverable Metals	EPA	EA MON
245.1	Preparation, Mercury	EPA	EET CAL 4
504.1	Microextraction	EPA-DW	EA MON
505	Extraction, Organochlorine Pesticides/PCBs	EPA	EA MON
525.2	Extraction of Semivolatile Compounds	EPA	EA MON
None	Autocomplete Prep - Metals - No Digestion required	None	EA MON

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 MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100

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

Sample Summary

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

Job ID: 380-7775-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-7775-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	07/05/22 10:55	07/07/22 10:15

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Eaton Analytical

CHAIN OF CUSTODY RECORD

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: EB

SAMPLES LOGGED IN BY: _____

SAMPLE TEMP RECEIVED AT:

Colton / No. California / Arizona _____ °C (Compliance: 4 ± 2 °C)

Monrovia 4.8 °C (Compliance: 4 ± 2 °C)

SAMPLES REC'D DAY OF COLLECTION? (check for yes)

CONDITION OF BLUE ICE: Frozen Partially Frozen _____ Thawed _____ Wet Ice _____ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: HONOLULU BOARD OF WATER SUPPLY		PROJECT CODE: RED HILL		COMPLIANCE SAMPLES <input type="checkbox"/>		NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>	
EEA CLIENT CODE:		COC ID:		- Requires state forms <input type="checkbox"/>		REGULATION INVOLVED: _____	
SAMPLE GROUP: 3Q2022		SEE ATTACHED BOTTLE ORDER FOR ANALYSES <input checked="" type="checkbox"/> (check for yes), <u>OR</u>		Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA, ...)			
TAT requested: STD_X_ 1 wk ___ 3 day ___ 2 day ___ 1 day ___		list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)					
SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	SAMPLER COMMENTS
7/5/22	1055	Moanalua Wells	HI0000331-223	CFW			X



380-7775 COC

* MATRIX TYPES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil O = Other - Please Identify
RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY:		EJ	BWS HONOLULU	7/5/22	1055
RELINQUISHED BY:		EJ	BWS HONOLULU	7/6/22	1200
RECEIVED BY:		Mark Urntich	EEA	7/7/22	1015
RELINQUISHED BY:					
RECEIVED BY:					

Bottle Order Information

Bottle Order: RED-HILL - Quarterly
 Bottle Order #: 1845
 Request From Client: 6/23/2022
 Date Order Posted: 6/23/2022 7:29:27AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
 Deliver By Date: 6/27/2022 11:59:00PM
 Lab Project Number: 38001111
 PWSID: HI00000331-201-TP071, HI00000331-202-TP072, HI00000

Order Completion Information

Creator: Davis Haley
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
6	6	36	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	504.1_PREC - Local Method	Water	Normal		
					505_LL_PREC - ML505 +505-EAL Aldrin Dieldrin Toxaphene	Water	Normal	CB (3)	
6	1	6	Plastic 250ml - unpreserved	None	2320B - (MOD) Total Alkalinity	Water	Normal		
					SM4500_H+ - Local Method	Water	Normal		
					2510B - Conductivity	Water	Normal		
6	1	6	Plastic 500ml - with Nitric Acid	Nitric Acid	200.8 - Metals, Priority Pollutant by 200.8	Water	Normal		
					200.7 - (MOD) Custom	Water	Normal		
6	1	6	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids (TDS)	Water	Normal	CB	
6	1	6	Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	SM4500_S2_D - Sulfide, Total	Water	Normal	CB	
6	6	36	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		
6	2	12	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - 525plus Plus TICs	Water	Normal		

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



	0	0	Clear Glass unpreserved		SUBCONTRACT - 625 Acid Physis		Normal	
					SUBCONTRACT - 625 Base Neutral LL (EAL) Physis	Water	Normal	
					SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal	
					SUBCONTRACT - 8015 Ethanol	Water	Normal	
					SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal	
					SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal	
					SUBCONTRACT - 8015 Jet Fuel 5 (JP5)	Water	Normal	
					SUBCONTRACT - 8015 Jet Fuel 8 (JP8)	Water	Normal	
6	2	12	Plastic 125mL - unpreserved	None	300_OF_28D_B - Bromide	Water	Normal	} - CB
					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	
6	1	6	Plastic 250ml - with Nitric Acid	Nitric Acid	245.1 - Local Method	Water	Normal	

Total Bottle Summary

Bottle Type Description

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	12
Clear Glass 1 gallon Wide - unpreserved	None	0
Plastic 125mL - unpreserved	None	12
Plastic 250ml - unpreserved	None	6
Plastic 250ml - with Nitric Acid	Nitric Acid	6
Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	6
Plastic 500ml - unpreserved	None	6
Plastic 500ml - with Nitric Acid	Nitric Acid	6
Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	36
Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	36
Total Bottles:		126

Notes to Field Staff:



Scan QR code for field sampler instructions

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.

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

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Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:
 Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.
 SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 3.4 °C) (Corr. Factor -03 °C) (Final = 3.1 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(8251,552), 505, SPME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID				Samp ID				Samp ID				Samp ID			
Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

<small>SIGNATURE</small> 	<small>PRINT NAME</small> GREITNER	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small> 07/07/22	<small>TIME</small> 10:15
<small>SIGNATURE</small> 	<small>PRINT NAME</small>	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small>	<small>TIME</small>
<small>SAMPLES CHECKED AGAINST COC BY:</small>				

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:
 Note: If sampler are out of temperature range, let the ASMs know, ASMs will determine whether to proceed with analysis or not.
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 6184 (Observation = 4.9 °C) (Corr.Factor 0.1 °C) (Final = 4.8 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (If received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

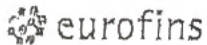
Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 615.4, HAA(8251,662), 506, 9PME, @GH, 832LCMS, 688, 839, Anatoxin, LCMS methods using 40 ml vials, international clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY: <u>Mark Urcutia</u>	SIGNATURE: <u>Mark Urcutia</u>	PRINT NAME: <u>Mark Urcutia</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>
			DATE: <u>7/7/22</u>
			TIME: <u>1015</u>
SAMPLES CHECKED AGAINST COC BY:			COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>
			DATE: _____
			TIME: _____



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 2.7 °C) (Corr.Factor -0.3 °C) (Final = 2.4 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx) / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 - (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	2 - (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)
3 - (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	4 - (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(5251,562), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

<small>SIGNATURE</small> 	<small>PRINT NAME</small> G. REITNER	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small> 07/07/22	<small>TIME</small> 10:15
<small>SIGNATURE</small> 	<small>PRINT NAME</small>	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small>	<small>TIME</small>
<small>SAMPLES CHECKED AGAINST COC BY:</small>				

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eurofins

Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 1.8 °C) (Corr. Factor -0.3 °C) (Final = 1.5 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥ 10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (If received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

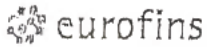
Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(8261,852), 505, SPME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	G. REITNER	Eurofins Eaton Analytical	07/07/22	10:15
SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 2.7 °C) (Corr. Factor -0.3 °C) (Final = 2.4 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 DioxIn (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(8261,562), 505, SPME, @CH, 532LCMS, 556, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	G. REITNER	Eurofins Eaton Analytical	07/07/22	10:15

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		

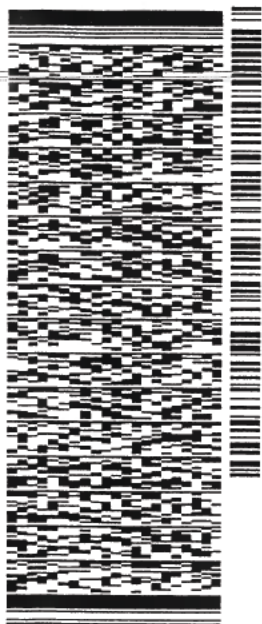
ORIGIN ID:HIKA (808) 748-5840
BMS-CHEM/LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE: 06JUL22
ACTWGT: 64.001LB
CAD: 100205419MINET4490
BILL RECIPIENT

TO CHUCK

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
REF: (926) 386-1178
INV. DEPT:

581J1/A4AE/FE4A



1 of 6
TRK# 7773 1539 1806
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MASTER

THU - 07 JUL 10:30A
PRIORITY OVERNIGHT

WZ WHPA

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ORIGIN ID: HKA (808) 748-5840
 BWS CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

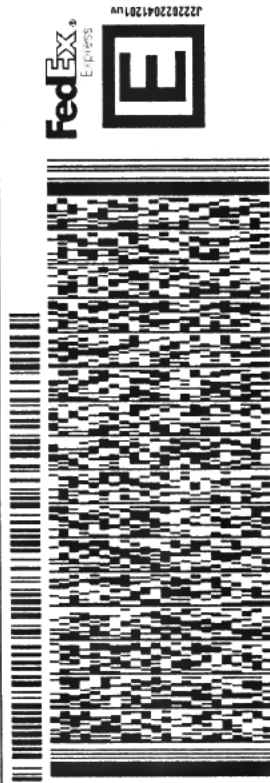
TO **CHUCK**

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178

REF

DEPT



THU - 07 JUL 10:30A
PRIORITY OVERNIGHT

2 of 6
 MPS# **7773 1539 2375**
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 Mstr# **7773 1539 1806**

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ORIGIN ID: HKA
 BMS CHEM/LAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06JUL22
 ACTWGT: 64.00 LB
 CAD: 100205419/INET4490

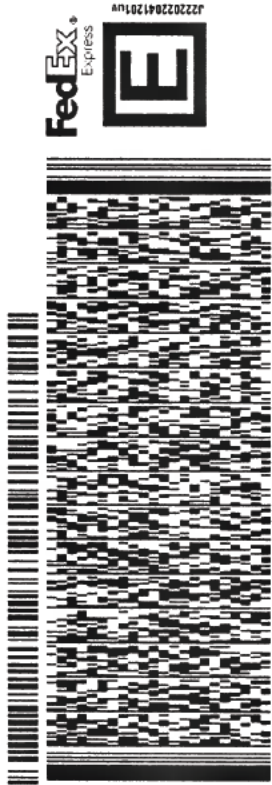
BILL RECIPIENT

TO **CHUCK**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF
 INV

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P.O. DEPT



3 of 6
 MPS# 7773 1539 0269
 Mstr# 7773 1539 1806

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ORIGIN ID: HKA
 BWS-CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06JUL22
 ACTWGT: 64.00 LB
 CAD: 100205419/INET4490

BILL RECIPIENT

TO **CHUCK**

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178
 INV REF:
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581J1/A4AE/FE4A

DEPT.



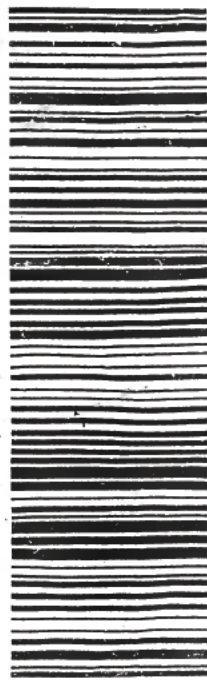
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4 of 6
 MPS# 7773 1539 2684
 Mstr# 7773 1539 1806

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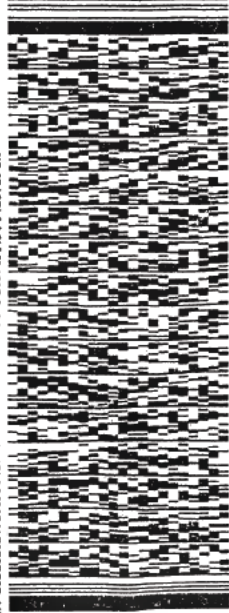
ORIGIN ID: HIKA (808) 748-5840
 BWS CHEM LAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06 JUL 22
 ACTWGT: 64.00 LB
 CAD: 100205419/IN/NET4490

TO CHUCK
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

REF: (626) 386-1178
 INV. PO. DEPT.

581J1/A4AE/F4A

5 of 6
MPS# 7773 1539 1975
Mstr# 7773 1539 1806
WZ WHPA
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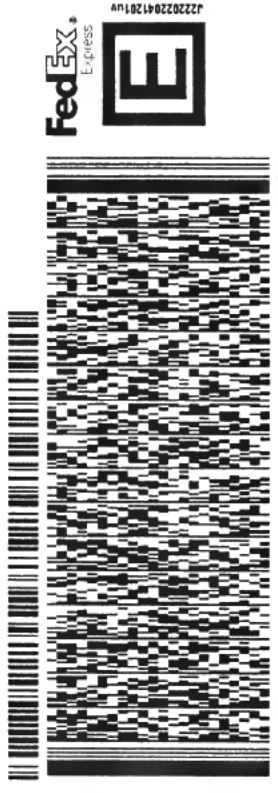
ORIGIN ID: HIKAB (808) 748-5840
 BWS CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06 JUL 22
 ACTWGT: 64.00 LB
 CAD: 100205419/MNET4490

BILL RECIPIENT

TO CHUCK
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF
 INV PO DEPT



6 of 6
 MPS# 7773 1539 2353
 Mistr# 7773 1539 1806

THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT

91016
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Eaton Analytical

CHAIN OF CUSTODY RECORD

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____		SAMPLES CHECKED AGAINST COC BY: <u>EB</u>	
SAMPLE TEMP RECEIVED AT:		SAMPLES LOGGED IN BY: _____	
<input type="checkbox"/> Colton / No. California / Arizona	_____ °C (Compliance: 4 ± 2 °C)	SAMPLES REC'D DAY OF COLLECTION? <input type="checkbox"/> (check for yes)	
<input checked="" type="checkbox"/> Monrovia	<u>4.8</u> °C (Compliance: 4 ± 2 °C)		
CONDITION OF BLUE ICE: Frozen <input checked="" type="checkbox"/> Partially Frozen _____ Thawed _____ Wet Ice _____ No Ice _____			
METHOD OF SHIPMENT: Pick-Up / Walk-In / <u>FedEx</u> / UPS / DHL / Area Fast / Top Line / Other: _____			

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: HONOLULU BOARD OF WATER SUPPLY		PROJECT CODE: RED HILL		(check for yes) _____		(check for yes)	
EEA CLIENT CODE: _____		COC ID: _____		COMPLIANCE SAMPLES <input type="checkbox"/>		NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>	
SAMPLE GROUP: 3Q2022		REGULATION INVOLVED: _____		- Requires state forms <input type="checkbox"/>			
				Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA, ...)			
TAT requested: STD_X_ 1 wk ___ 3 day ___ 2 day ___ 1 day ___				SEE ATTACHED BOTTLE ORDER FOR ANALYSES <input checked="" type="checkbox"/> (check for yes), <u>OR</u>			
				list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)			
SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	SAMPLER COMMENTS
7/5/22	1055	Moanalua Wells	HI0000331-223	CFW			Red Hill X



* **MATRIX TYPES:** RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil O = Other - Please Identify
 RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

SAMPLED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY:		EJ	BWS HONOLULU	7/5/22	1055
RELINQUISHED BY:		EJ	BWS HONOLULU	7/6/22	1200
RECEIVED BY:	<u>Mark Urantia</u>	Mark Urantia	EEA	7/7/22	1015
RELINQUISHED BY:					
RECEIVED BY:					

Bottle Order Information

Bottle Order: RED-HILL - Quarterly
 Bottle Order #: 1845
 Request From Client: 6/23/2022
 Date Order Posted: 6/23/2022 7:29:27AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
 Deliver By Date: 6/27/2022 11:59:00PM
 Lab Project Number: 38001111
 PWSID: HI00000331-201-TP071, HI00000331-202-TP072, HI00000

Order Completion Information

Creator: Davis Haley
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
6	6	36	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	504.1_PREC - Local Method	Water	Normal		
					505_LL_PREC - ML505 +505-EAL Aldrin Dieldrin Toxaphene	Water	Normal	CB (3)	
6	1	6	Plastic 250ml - unpreserved	None	2320B - (MOD) Total Alkalinity	Water	Normal		
					SM4500_H+ - Local Method	Water	Normal		
					2510B - Conductivity	Water	Normal		
6	1	6	Plastic 500ml - with Nitric Acid	Nitric Acid	200.8 - Metals, Priority Pollutant by 200.8	Water	Normal		
					200.7 - (MOD) Custom	Water	Normal		
6	1	6	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids (TDS)	Water	Normal	CB	
6	1	6	Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	SM4500_S2_D - Sulfide, Total	Water	Normal	CB	
6	6	36	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		
6	2	12	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - 525plus Plus TICs	Water	Normal		

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

	0	0	Clear Glass - unpreserved		SUBCONTRACT - 625 Acid Physis			
					SUBCONTRACT - 625 Base Neutral LL (EAL) Physis	Water	Normal	
					SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal	
					SUBCONTRACT - 8015 Ethanol	Water	Normal	
					SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal	
					SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal	
					SUBCONTRACT - 8015 Jet Fuel 5 (JP5)	Water	Normal	
					SUBCONTRACT - 8015 Jet Fuel 8 (JP8)	Water	Normal	
6	2	12	Plastic 125mL - unpreserved	None	300_OF_28D_B - Bromide	Water	Normal	} - CB
					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	
6	1	6	Plastic 250ml - with Nitric Acid	Nitric Acid	245.1 - Local Method	Water	Normal	

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	12
Clear Glass 1 gallon Wide - unpreserved	None	0
Plastic 125mL - unpreserved	None	12
Plastic 250ml - unpreserved	None	6
Plastic 250ml - with Nitric Acid	Nitric Acid	6
Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	6
Plastic 500ml - unpreserved	None	6
Plastic 500ml - with Nitric Acid	Nitric Acid	6
Voa Vial 40ml Amber - Ascor. Acid & HCL	Ascorbic Acid and Hydrochloric Acid	36
Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	36
Total Bottles:		126

Notes to Field Staff:



Scan QR code for field sampler instructions

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.

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

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Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 3.4 °C) (Corr. Factor -03 °C) (Final = 3.1 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥ 10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation= _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(8251,552), 505, SPME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID				Samp ID				Samp ID				Samp ID			
Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test	Bottle #	None/<6 mm	>6mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY:	SIGNATURE	PRINT NAME G. REITNER	COMPANY/TITLE Eurofins Eaton Analytical	DATE 07/07/22	TIME 10:15
SAMPLES CHECKED AGAINST COC BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE Eurofins Eaton Analytical	DATE	TIME

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:
 Note: If sampler are out of temperature range, let the ASMs know, ASMs will determine whether to proceed with analysis or not.
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 6184 (Observation = 4.9 °C) (Corr.Factor 0.1 °C) (Final = 4.8 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / **Ⓢ** UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (If received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

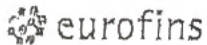
Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 615.4, HAA(8251,662), 506, 9PME, @GH, 832LCMS, 688, 839, Anatoxin, LCMS methods using 40 ml vials, international clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY: <u>Mark Urcutia</u>	SIGNATURE: <u>Mark Urcutia</u>	PRINT NAME: <u>Mark Urcutia</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>
			DATE: <u>7/7/22</u>
			TIME: <u>1015</u>
SAMPLES CHECKED AGAINST COC BY:			COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>
			DATE: _____
			TIME: _____



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 2.7 °C) (Corr. Factor -0.3 °C) (Final = 2.4 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx) / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 - (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 - (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 - (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 - (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(5251,562), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

<small>SIGNATURE</small> 	<small>PRINT NAME</small> G. REITNER	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small> 07/07/22	<small>TIME</small> 10:15
<small>SIGNATURE</small> 	<small>PRINT NAME</small>	<small>COMPANY/TITLE</small> Eurofins Eaton Analytical	<small>DATE</small>	<small>TIME</small>
<small>SAMPLES CHECKED AGAINST COC BY:</small>				

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eurofins

Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 1.8 °C) (Corr. Factor -0.3 °C) (Final = 1.5 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥ 10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (If received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(8261,852), 505, SPME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	Samp ID	Bottle #	None/<8 mm	>8mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE RECEIVED BY:	PRINT NAME G. REITNER	COMPANY/TITLE Eurofins Eaton Analytical	DATE 07/07/22	TIME 10:15
SIGNATURE SAMPLES CHECKED AGAINST COC BY:	PRINT NAME	COMPANY/TITLE Eurofins Eaton Analytical	DATE	TIME



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 2.7 °C) (Corr. Factor -0.3 °C) (Final = 2.4 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 DioxIn (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(8261,562), 505, SPME, @CH, 532LCMS, 556, 538, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test	

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	G. REITNER	Eurofins Eaton Analytical	07/07/22	10:15

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		

ORIGIN ID:HIKA (808) 748-5840
BMS-CHEM/LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

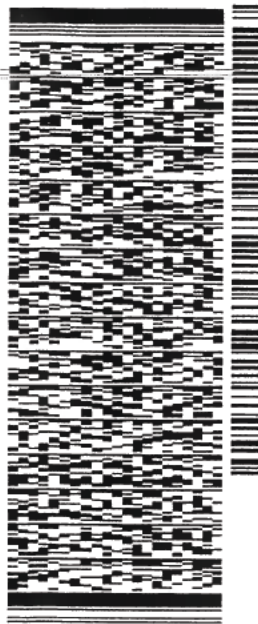
SHIP DATE: 06JUL22
ACTWGT: 64.0018
CAD: 100205419/NET/4490
BILL RECIPIENT

TO CHUCK

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

581J1/A4AE/FE4A

(926) 386-1178 REF:
INV. DEPT:



J222022041201uv

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TRK# 7773 1539 1806
0201

MASTER

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PRIORITY OVERNIGHT

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2. Fold the printed page along the horizontal line.
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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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ORIGIN ID: HKA (808) 748-5840
 BWS CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06JUL22
 ACTWGT: 64.00 LB
 CAD: 100205419/MINET4490

TO **CHUCK**

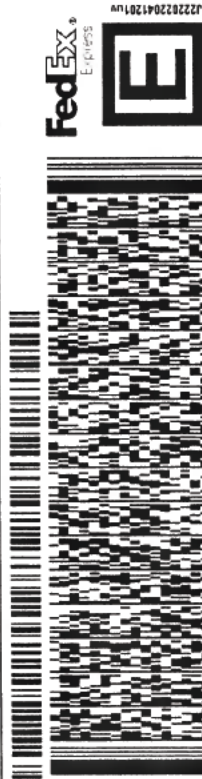
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100

MONROVIA CA 91016

(626) 386-1178

REF

DEPT



THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT

MPS# 7773 1539 2375
 INV 0263

Mstr# 7773 1539 1806

0201

91016
 CA-US BUR

WZ WHPA



- After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
 2. Fold the printed page along the horizontal line.
 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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ORIGIN ID: HKA
 BMS CHEM/LAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06JUL22
 ACTWGT: 64.00 LB
 CAD: 100205419/INET4490

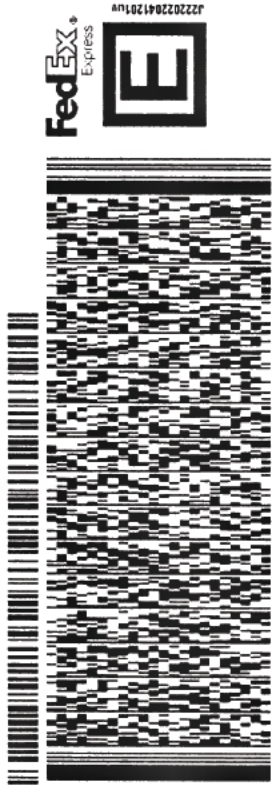
BILL RECIPIENT

TO **CHUCK**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF
 INV

581J1M4AEFE4A

P.O. DEPT



3 of 6
 MPS# 7773 1539 0269
 Mstr# 7773 1539 1806

THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT

91016
 BUR
 CA-US

WZ WHPA



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ORIGIN ID: HKA
 BWS-CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 06JUL22
 ACTWGT: 64.00 LB
 CAD: 100205419/INET4490

BILL RECIPIENT

TO **CHUCK**

EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF:

INV PO

DEPT.

581J1/A4AE/FE4A



THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT

4 of 6

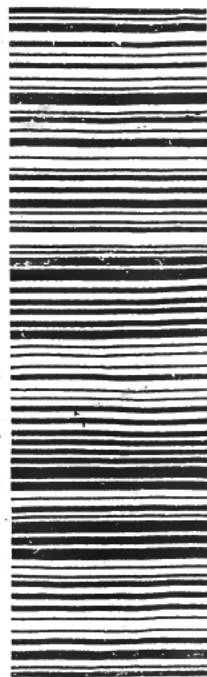
MPS# 7773 1539 2684

0263

Mstr# 7773 1539 1806

91016
 CA-US BUR

WZ WHPA



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ORIGIN ID: HIKA (808) 748-5840
 BWS CHEM LAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

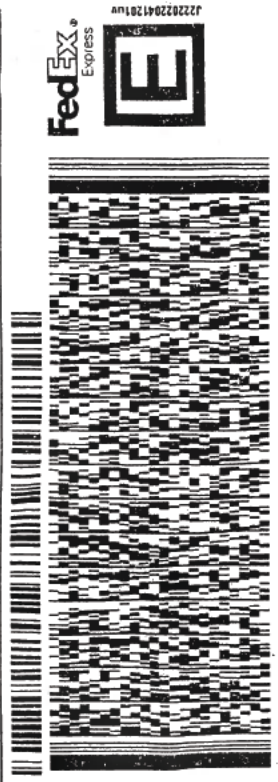
SHIP DATE: 06 JUL 22
 ACTWGT: 64.00 LB
 CAD: 100205419/INET4490

BILL RECIPIENT

TO **CHUCK**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

REF: (626) 386-1178
 INV. PO. DEPT.

581J1/A4AEFE4A



FedEx Express logo with a large 'E' symbol. Below it is a large barcode. To the right of the barcode is a smaller barcode and the number '22202041201W'.

5 of 6
7773 1539 1975
 0263
Mstr# 7773 1539 1806

WZ WHPA
 91016
 BUR
 CA-US

THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT



After printing this label:
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ORIGIN ID: HIKAB (808) 748-5840
 BWS CHEMLAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

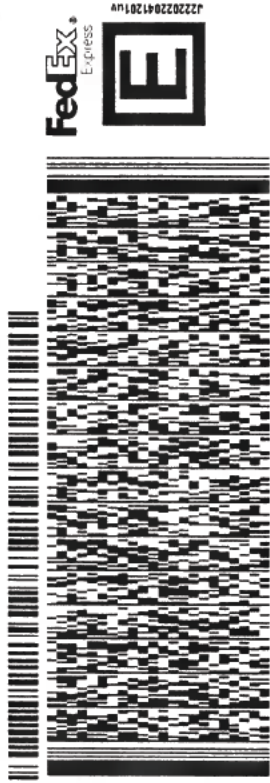
SHIP DATE: 06 JUL 22
 ACTWGT: 64.00 LB
 CAD: 100205419/MNET4490

BILL RECIPIENT

TO CHUCK
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178
 INV REF
 PO DEPT

581U17A7AEFE4A



6 of 6
 MPS# 7773 1539 2353
 Mistr# 7773 1539 1806

THU - 07 JUL 10:30A
 PRIORITY OVERNIGHT

91016
 CA-US BUR



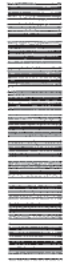
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Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: Frank, Debbie L Shipping/Receiving: Debbie Frank@et.eurofins.com Company: Eurofins Environment Testing Southwest Address: 2941 Dow Avenue, Suite 100, Tustin, CA, 92780 Phone: 714-895-5494(Tel) Project Name: RED-HILL Site: Honolulu BWS Sites		Lab PM: Frank, Debbie L E-Mail: Debbie Frank@et.eurofins.com State: Hawaii		Carrier Tracking No(s): 380-11489 1 Page: Page 1 of 1 Job #: 380-7775-1	
Due Date Requested: 7/27/2022 TAT Requested (days): PO #: WO #: Project #: 38001111 SOW#:		Accreditations Required (See note): State - Hawaii			
Analysis Requested		Preservation Codes: M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R NaHSO4 S H2SO4 T TSP Doctatehydrate U Acetone V MCAA W pH 4-5 Y Trizma Z other (specify) Other:			
Sample Identification - Client ID (Lab ID) MOANALUA WELLS (331-223-T P202) (380-7775-1)		Special Instructions/Note: Total Number of containers: 1			
Sample Date: 7/5/22 Sample Time: 10:55 Hawaiian Matrix: (Water, Solid, Over-sorb, BT-Tissue, A=Al) Sample Type (C=comp, G=grab): Preservation Code:		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): X			
Sample Date: 7/5/22 Sample Time: 10:55 Hawaiian Matrix: (Water, Solid, Over-sorb, BT-Tissue, A=Al) Sample Type (C=comp, G=grab): Preservation Code:		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): X			
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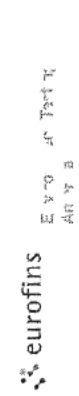
Note: Since laboratory accreditations are subject to change Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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 Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2
 Empty Kit Relinquished by
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Custody Seals Intact: [Signature]
 Δ Yes Δ No

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

Method of Shipment:
 Date/Time Received by: 7/11/22 1145 [Signature]
 Date/Time Received by: [Signature]
 Date/Time Received by: [Signature]
 Cooler Temperature(s) °C and Other Remarks: 3-1/31 /k-5C12





Chain of Custody Record

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

Client Information (Sub Contract Lab) Client Contact: Frank, Debbie L Shipping/Receiving: Debbie Frank@et.eurofins.com Company: Eurofins Environment Testing Southwest, State - Hawaii		Lab PM: Frank, Debbie L E-Mail: Debbie Frank@et.eurofins.com		Carrier Tracking No(s): 380-11489 1							
Address: 2941 Dow Avenue, Suite 100, Tustin, CA, 92780 Phone: 714-895-5494 (T el) Email:		Due Date Requested: 7/27/2022 TAT Requested (days):		Page: Page 1 of 1 Job #: 380-7775-1							
Project Name: RED-HILL Site: Honolulu BWS Sites		PO #: WO #: Project #: 38001111 SOW#:		Preservation Codes: M Hexane N None O As/NaOH P Na2O4S Q Na2SO3 R NaHSO4 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Y Trizma Z other (specify)							
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time	Sample Type (C=comp, G=grab)	MATRIX (W=water, S=solid, O=organic, BT=tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
MOANALUA WELLS (331-223-T P202) (380-7775-1)		7/5/22	10:55 Hawaiian		Water		X			1	

Note: Since laboratory accreditations are subject to change Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon 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/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 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		Method of Shipment:	
Relinquished by: <i>[Signature]</i>	Date/Time: 7/11/22 1145	Received by:	Date/Time: 7/11/22 1145	Company: ER	Company:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Company:	Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 3-1/31 /k-5C12			



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-7775-1

Login Number: 7775
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

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: 380-7775-1

Login Number: 7775
List Number: 2
Creator: Ornelas, Olga

List Source: Eurofins Calscience
List Creation: 07/11/22 02:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	