

ANALYTICAL REPORT

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Laboratory Job ID: 380-20077-1

Client Project/Site: INTERA - Red-Hill-Incident

For:

City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Attn: Mr. Erwin Kawata



Authorized for release by:
10/25/2022 11:59:20 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)



Rachelle Arada
Manager of Project Management
10/25/2022 11:59:20 PM





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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Qualifiers

GC/MS VOA

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

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
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.
^3-	Reporting Limit Check Standard is outside acceptance limits, low biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

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

GC Semi VOA

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

HPLC/IC

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

Metals

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

General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

Glossary

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

Definitions/Glossary

Client: City & County of Honolulu
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Job ID: 380-20077-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
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: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Job ID: 380-20077-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-20077-1

Comments

No additional comments.

Receipt

The samples were received on 9/7/2022 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 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 continuing calibration verification (CCV) analyzed in batch 380-17357 was outside the method criteria for the following analyte(s): Benzo[g,h,i]perylene, Dibenz(a,h)anthracene and Indeno[1,2,3-cd]pyrene. All samples are ND for analytes biased high in the CCV (no impact - data is reportable).

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

HPLC/IC

No analytical or quality issues were noted, other than those described 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 380-17678 contained Silver above the Method Detection Limit (MDL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

General Chemistry

Method SM 2510B: The method blank for analytical batch 380-17166 contained EC above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

Subcontract non-Sister

See attached subcontract report.

Organic Prep

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

Subcontract Work

Methods 8015 Diesel LL (EAL) and Motor Oil, 8015 Ethanol, 8015 Gas (Purgeable) LL (EAL), 8015 Jet Fuel 5 (JP5), 8015 Jet Fuel 8 (JP8): These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Methods 625 Acid LL (EAL) Physis, 625 Base Neutral LL (EAL) Physis, 625 PAH Physis LL (EAL) + TICs: These methods were subcontracted to Physis Environmental Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	200		5.0	ug/L	1		300.0	Total/NA
Chloride	59		1.0	mg/L	2		300.0	Total/NA
Nitrate as N	0.59		0.050	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.59		0.050	mg/L	1		300.0	Total/NA
Sulfate	10		0.25	mg/L	1		300.0	Total/NA
Calcium	11		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	11		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.8		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	36		1.0	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	4.3		1.0	ug/L	1		200.8	Total Recoverable
Nickel	28		5.0	ug/L	1		200.8	Total Recoverable
Alkalinity	61		2.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	61		2.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	340	^2	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	210		20	mg/L	1		SM 2540C	Total/NA
Fluoride	0.072		0.050	mg/L	1		SM 4500 F C	Total/NA
pH	7.8	HF		SU	1		SM 4500 H+ B	Total/NA
Acenaphthene	0.0137		0.005	0.001 ug/L	1		625 Acid LL (EAL) Physis	Total/NA

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-20077-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Method: EPA-DW 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	ND		0.50	ug/L			09/21/22 13:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	ND		2.0	ug/L			09/12/22 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		09/12/22 19:37	1
4-Bromofluorobenzene (Surr)	96		70 - 130		09/12/22 19:37	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		09/12/22 19:37	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			09/15/22 20:54	1
1,1,1-Trichloroethane	ND		0.50	ug/L			09/15/22 20:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			09/15/22 20:54	1
1,1,2-Trichloroethane	ND		0.50	ug/L			09/15/22 20:54	1
1,1-Dichloroethane	ND		0.50	ug/L			09/15/22 20:54	1
1,1-Dichloroethylene	ND		0.50	ug/L			09/15/22 20:54	1
1,1-Dichloropropene	ND		0.50	ug/L			09/15/22 20:54	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			09/15/22 20:54	1
1,2,3-Trichloropropane	ND		0.50	ug/L			09/15/22 20:54	1
1,2,4-Trichlorobenzene	ND		0.50	ug/L			09/15/22 20:54	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
1,2-Dichloroethane	ND		0.50	ug/L			09/15/22 20:54	1
1,2-Dichloropropane	ND		0.50	ug/L			09/15/22 20:54	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
1,3-Dichloropropane	ND		0.50	ug/L			09/15/22 20:54	1
2,2-Dichloropropane	ND		0.50	ug/L			09/15/22 20:54	1
2-Butanone (MEK)	ND		5.0	ug/L			09/15/22 20:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	ug/L			09/15/22 20:54	1
Acetone	ND		500	ug/L			09/15/22 20:54	1
Benzene	ND		0.50	ug/L			09/15/22 20:54	1
Bromobenzene	ND		0.50	ug/L			09/15/22 20:54	1
Bromochloromethane	ND	*1	0.50	ug/L			09/15/22 20:54	1
Bromodichloromethane	ND		0.50	ug/L			09/15/22 20:54	1
Bromoform	ND		0.50	ug/L			09/15/22 20:54	1
Bromomethane (Methyl Bromide)	ND		0.50	ug/L			09/15/22 20:54	1
Carbon disulfide	ND		0.50	ug/L			09/15/22 20:54	1
Carbon tetrachloride	ND	*1	0.50	ug/L			09/15/22 20:54	1
Chlorobenzene	ND		0.50	ug/L			09/15/22 20:54	1
Chlorodibromomethane	ND		0.50	ug/L			09/15/22 20:54	1
Chloroethane	ND		0.50	ug/L			09/15/22 20:54	1
Chloroform (Trichloromethane)	ND		0.50	ug/L			09/15/22 20:54	1
Dichloromethane	ND		0.50	ug/L			09/15/22 20:54	1
cis-1,2-Dichloroethylene	ND		0.50	ug/L			09/15/22 20:54	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			09/15/22 20:54	1
Dibromomethane	ND		0.50	ug/L			09/15/22 20:54	1
Dichlorodifluoromethane	ND		0.50	ug/L			09/15/22 20:54	1
Ethylbenzene	ND		0.50	ug/L			09/15/22 20:54	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		0.50	ug/L			09/15/22 20:54	1
Isopropylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
m,p-Xylenes	ND		0.50	ug/L			09/15/22 20:54	1
m-Dichlorobenzene (1,3-DCB)	ND		0.50	ug/L			09/15/22 20:54	1
Methyl-tert-butyl Ether (MTBE)	ND		0.50	ug/L			09/15/22 20:54	1
Naphthalene	ND		0.50	ug/L			09/15/22 20:54	1
n-Butylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
N-Propylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
o-Dichlorobenzene (1,2-DCB)	ND		0.50	ug/L			09/15/22 20:54	1
o-Chlorotoluene	ND		0.50	ug/L			09/15/22 20:54	1
o-Xylene	ND		0.50	ug/L			09/15/22 20:54	1
p-Chlorotoluene	ND		0.50	ug/L			09/15/22 20:54	1
p-Dichlorobenzene (1,4-DCB)	ND		0.50	ug/L			09/15/22 20:54	1
p-Isopropyltoluene	ND		0.50	ug/L			09/15/22 20:54	1
sec-Butylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
Styrene	ND		0.50	ug/L			09/15/22 20:54	1
Tert-amyl methyl ether	ND		3.0	ug/L			09/15/22 20:54	1
Tert-butyl ethyl ether	ND		3.0	ug/L			09/15/22 20:54	1
tert-Butylbenzene	ND		0.50	ug/L			09/15/22 20:54	1
Tetrachloroethene (PCE)	ND		0.50	ug/L			09/15/22 20:54	1
Toluene	ND		0.50	ug/L			09/15/22 20:54	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			09/15/22 20:54	1
Xylenes, Total	ND		0.50	ug/L			09/15/22 20:54	1
trans-1,2-Dichloroethylene	ND		0.50	ug/L			09/15/22 20:54	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			09/15/22 20:54	1
Trichloroethylene (TCE)	ND		0.50	ug/L			09/15/22 20:54	1
Trichlorofluoromethane (Freon 11)	ND		0.50	ug/L			09/15/22 20:54	1
Vinyl Chloride (VC)	ND		0.30	ug/L			09/15/22 20:54	1
Trichlorotrifluoroethane	ND		0.50	ug/L			09/15/22 20:54	1
Bromoethane	ND		0.50	ug/L			09/15/22 20:54	1
Chloromethane (methyl chloride)	ND		0.50	ug/L			09/15/22 20:54	1
Diisopropyl ether	ND		3.0	ug/L			09/15/22 20:54	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	22	T J	ug/L		0.99			09/15/22 20:54	1
Unknown	0.64	T J	ug/L		8.56			09/15/22 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		09/15/22 20:54	1
4-Bromofluorobenzene (Surr)	109		70 - 130		09/15/22 20:54	1
Toluene-d8 (Surr)	94		70 - 130		09/15/22 20:54	1

Method: EPA-DW 524.3 - Volatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.0050	ug/L			09/20/22 12:55	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	ug/L			09/20/22 12:55	1
1,2,3-Trichloropropane	ND		0.0050	ug/L			09/20/22 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
tert-Butyl methyl-d3 ether	99		70 - 130		09/20/22 12:55	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
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Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Method: EPA-DW 524.3 - Volatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		09/20/22 12:55	1
1,2-Dichlorobenzene-d4 (Surr)	96		70 - 130		09/20/22 12:55	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		09/08/22 10:40	09/12/22 12:26	1
2,4'-DDE	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
2,4'-DDT	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
2,4-Dinitrotoluene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
2,6-Dinitrotoluene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
4,4'-DDD	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
4,4'-DDE	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
4,4'-DDT	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Acenaphthene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Acenaphthylene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Acetochlor	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Alachlor	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
alpha-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
alpha-Chlordane	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Anthracene	ND		0.021	ug/L		09/08/22 10:40	09/12/22 12:26	1
Atrazine	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Benz(a)anthracene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Benzo[a]pyrene	ND	^3+	0.021	ug/L		09/08/22 10:40	09/12/22 12:26	1
Benzo[b]fluoranthene	ND	^3+	0.021	ug/L		09/08/22 10:40	09/12/22 12:26	1
Benzo[g,h,i]perylene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Benzo[k]fluoranthene	ND	^3+	0.021	ug/L		09/08/22 10:40	09/12/22 12:26	1
beta-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Bromacil	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Butachlor	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Butylbenzylphthalate	ND		0.52	ug/L		09/08/22 10:40	09/12/22 12:26	1
Caffeine	ND		0.052	ug/L		09/13/22 11:13	09/14/22 17:25	1
Chlorobenzilate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Chloroneb	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Chlorpyrifos	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Chrysene	ND		0.021	ug/L		09/08/22 10:40	09/12/22 12:26	1
delta-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Di(2-ethylhexyl)adipate	ND		0.63	ug/L		09/08/22 10:40	09/12/22 12:26	1
Bis(2-ethylhexyl) phthalate	ND		0.63	ug/L		09/08/22 10:40	09/12/22 12:26	1
Diazinon (Qualitative)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Dibenz(a,h)anthracene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Diclorvos (DDVP)	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Dieldrin	ND		0.21	ug/L		09/08/22 10:40	09/12/22 12:26	1
Diethylphthalate	ND		0.52	ug/L		09/08/22 10:40	09/12/22 12:26	1
Dimethoate	ND	*+	0.10	ug/L		09/13/22 11:13	09/14/22 17:25	1
Dimethylphthalate	ND		0.52	ug/L		09/08/22 10:40	09/12/22 12:26	1
Di-n-butyl phthalate	ND		1.0	ug/L		09/08/22 10:40	09/12/22 12:26	1
Di-n-octyl phthalate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Endosulfan I (Alpha)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II (Beta)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Endosulfan sulfate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Endrin	ND	^3+	0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Endrin aldehyde	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
EPTC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Fluoranthene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Fluorene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
gamma-Chlordane	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Heptachlor	ND		0.042	ug/L		09/08/22 10:40	09/12/22 12:26	1
Heptachlor epoxide (isomer B)	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Hexachlorobenzene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Hexachlorocyclopentadiene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Indeno[1,2,3-cd]pyrene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Isophorone	ND		0.52	ug/L		09/08/22 10:40	09/12/22 12:26	1
gamma-BHC (Lindane)	ND		0.042	ug/L		09/08/22 10:40	09/12/22 12:26	1
Malathion	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Methoxychlor	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Metolachlor	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Metribuzin	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Molinate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Naphthalene	ND		0.31	ug/L		09/08/22 10:40	09/12/22 12:26	1
Parathion	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Total Permethrin (mixed isomers)	ND		0.21	ug/L		09/08/22 10:40	09/12/22 12:26	1
Phenanthrene	ND		0.042	ug/L		09/08/22 10:40	09/12/22 12:26	1
Propachlor	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Pyrene	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Simazine	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Terbacil	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Terbutylazine	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
Thiobencarb	ND		0.21	ug/L		09/08/22 10:40	09/12/22 12:26	1
trans-Nonachlor	ND		0.052	ug/L		09/08/22 10:40	09/12/22 12:26	1
Trifluralin	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
1-Methylnaphthalene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1
2-Methylnaphthalene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 12:26	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.7	T J N	ug/L		2.40	124-18-5	09/13/22 11:13	09/14/22 17:25	1
Unknown	0.83	T J	ug/L		2.77		09/08/22 10:40	09/12/22 12:26	1
n-Hexadecanoic acid	1.5	T J N	ug/L		5.88	57-10-3	09/13/22 11:13	09/14/22 17:25	1
6-Octadecenoic acid	1.3	T J N	ug/L		6.49	1000336-66-8	09/13/22 11:13	09/14/22 17:25	1
Octadecanoic acid	1.2	T J N	ug/L		6.56	57-11-4	09/13/22 11:13	09/14/22 17:25	1
Squalene	0.67	T J N	ug/L		10.22	111-02-4	09/13/22 11:13	09/14/22 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	09/08/22 10:40	09/12/22 12:26	1
2-Nitro-m-xylene	100		70 - 130	09/13/22 11:13	09/14/22 17:25	1
Triphenylphosphate	106		70 - 130	09/08/22 10:40	09/12/22 12:26	1
Triphenylphosphate	117		70 - 130	09/13/22 11:13	09/14/22 17:25	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Perylene-d12	92		70 - 130	09/08/22 10:40	09/12/22 12:26	1
Perylene-d12	101		70 - 130	09/13/22 11:13	09/14/22 17:25	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		0.041	ug/L		09/14/22 12:00	09/15/22 03:06	1
1,2-Dibromo-3-Chloropropane	ND		0.010	ug/L		09/14/22 12:00	09/15/22 03:06	1
1,2-Dibromoethane	ND		0.010	ug/L		09/14/22 12:00	09/15/22 03:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	97		60 - 140	09/14/22 12:00	09/15/22 03:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	200		5.0	ug/L			09/14/22 13:06	1
Chloride	59		1.0	mg/L			09/08/22 12:37	2
Nitrate as N	0.59		0.050	mg/L			09/08/22 02:05	1
Nitrate Nitrite as N	0.59		0.050	mg/L			09/08/22 02:05	1
Sulfate	10		0.25	mg/L			09/08/22 02:05	1
Nitrite as N	ND		0.050	mg/L			09/08/22 02:05	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	11		1.0	mg/L			09/14/22 13:22	1
Magnesium	11		0.10	mg/L			09/14/22 13:22	1
Potassium	1.8		1.0	mg/L			09/14/22 13:22	1
Sodium	36		1.0	mg/L			09/14/22 13:22	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		09/15/22 08:01	09/16/22 13:37	1
Arsenic	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Beryllium	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Cadmium	ND		0.50	ug/L		09/15/22 08:01	09/16/22 13:37	1
Chromium	4.3		1.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Copper	ND		2.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Lead	ND		0.50	ug/L		09/15/22 08:01	09/16/22 13:37	1
Nickel	28		5.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Selenium	ND		5.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Silver	ND	^2	0.50	ug/L		09/15/22 08:01	09/16/22 13:37	1
Thallium	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:37	1
Zinc	ND		20	ug/L		09/15/22 08:01	09/16/22 13:37	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		09/15/22 10:18	09/15/22 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	61		2.0	mg/L			09/12/22 19:49	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	61		2.0	mg/L			09/12/22 19:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		2.0	mg/L			09/12/22 19:49	1
Specific Conductance (SM 2510B)	340	^2	2.0	umhos/cm			09/12/22 19:49	1
Total Dissolved Solids (SM 2540C)	210		20	mg/L			09/12/22 17:18	1
Fluoride (SM 4500 F C)	0.072		0.050	mg/L			09/12/22 23:01	1
pH (SM 4500 H+ B)	7.8	HF		SU			09/12/22 19:49	1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,4,5-Trichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,4,6-Trichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,4-Dichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,4-Dinitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,6-Dichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,6-Di-tert-butyl-4-methylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2,6-Di-tert-butylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Chloronaphthalene	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Chlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Methyl-4,6-dinitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
2-Nitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
3+4-Methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
3-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Bromophenylphenyl ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Chloro-3-methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Chloroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Chlorophenylphenyl ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
4-Nitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
6-tert-butyl-2,4-dimethylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Acenaphthene	0.0137		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Acenaphthylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Aniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzidine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Benzoic Acid	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl Alcohol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
Biphenyl	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Bis(2-Chloroethoxy) methane	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Bis(2-Chloroethyl) ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Bis(2-Chloroisopropyl) ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Chrysene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Dibenzofuran	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Dibenzothiophene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Fluorene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Hexachloroethane	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Naphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Nitrobenzene	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
N-Nitrosodi-n-propylamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
N-Nitrosodiphenylamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Pentachlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Perylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Phenanthrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1
Phenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 18:46	1
p-tert-Butylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 18:46	1
Pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
(2,4,6-Tribromophenol)	128		31 - 143	09/13/22 00:00	10/06/22 18:46	1
(d10-Acenaphthene)	109		45 - 118	09/13/22 00:00	10/06/22 18:46	1
(d10-Phenanthrene)	90		56 - 123	09/13/22 00:00	10/06/22 18:46	1
(d12-Chrysene)	68		36 - 142	09/13/22 00:00	10/06/22 18:46	1
(d12-Perylene)	84		36 - 161	09/13/22 00:00	10/06/22 18:46	1
(d5-Phenol)	25		0 - 85	09/13/22 00:00	10/06/22 18:46	1
(d8-Naphthalene)	88		20 - 112	09/13/22 00:00	10/06/22 18:46	1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.026		mg/L			09/15/22 20:54	1
JP5	ND	U	0.052		mg/L			09/15/22 20:54	1
JP8	ND	U	0.052		mg/L			09/15/22 20:54	1
MOTOR OIL	ND	U	0.052		mg/L			09/15/22 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	73		60 - 130		09/15/22 20:54	1
HEXACOSANE	105		60 - 130		09/15/22 20:54	1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			09/09/22 20:54	1

Client Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	85		60 - 140		09/09/22 20:54	1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/09/22 12:13	1

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-20077-2

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

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			09/12/22 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130		09/12/22 19:59	1
4-Bromofluorobenzene (Surr)	100		70 - 130		09/12/22 19:59	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		09/12/22 19:59	1

Method: EPA-DW 524.3 - Volatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.0050	ug/L			09/20/22 13:19	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	ug/L			09/20/22 13:19	1
1,2,3-Trichloropropane	ND		0.0050	ug/L			09/20/22 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
tert-Butyl methyl-d3 ether	96		70 - 130		09/20/22 13:19	1
4-Bromofluorobenzene (Surr)	102		70 - 130		09/20/22 13:19	1
1,2-Dichlorobenzene-d4 (Surr)	95		70 - 130		09/20/22 13:19	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		0.041	ug/L		09/14/22 12:00	09/15/22 03:40	1
1,2-Dibromo-3-Chloropropane	ND		0.010	ug/L		09/14/22 12:00	09/15/22 03:40	1
1,2-Dibromoethane	ND		0.010	ug/L		09/14/22 12:00	09/15/22 03:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	102		60 - 140		09/14/22 12:00	09/15/22 03:40

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			09/09/22 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	89		60 - 140		09/09/22 22:49	1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/14/22 13:43	1

Action Limit Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

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
Trihalomethanes, Total	ND		ug/L	80			524.2	Total/NA
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	*1	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
1,2-Dibromoethane (EDB)	ND		ug/L	0.05			524.3	Total/NA
1,2-Dibromo-3-Chloropropane	ND		ug/L	0.2			524.3	Total/NA
1,2,3-Trichloropropane	ND		ug/L			0.6000	524.3	Total/NA
Alachlor	ND		ug/L	2			525.2	Total/NA
Atrazine	ND		ug/L	3			525.2	Total/NA
Benzo[a]pyrene	ND	^3+	ug/L	0.2			525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400			525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6			525.2	Total/NA
Endrin	ND	^3+	ug/L	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
gamma-BHC (Lindane)	ND		ug/L	0.2			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-Dibromo-3-Chloropropane	ND		ug/L	0.2			504.1	Total/NA
1,2-Dibromoethane	ND		ug/L	0.05			504.1	Total/NA
Chloride	59		mg/L			250	300.0	Total/NA
Nitrate as N	0.59		mg/L	10			300.0	Total/NA
Nitrate Nitrite as N	0.59		mg/L	10			300.0	Total/NA
Sulfate	10		mg/L			250	300.0	Total/NA
Nitrite as N	ND		mg/L	1			300.0	Total/NA
Mercury	ND		mg/L	0.002			245.1	Total/NA
Total Dissolved Solids	210		mg/L			500	SM 2540C	Total/NA

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Action Limit Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ (Continued)

Lab Sample ID: 380-20077-1

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
Fluoride	0.072		mg/L	4	2		SM 4500 F C	Total/NA

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-20077-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	HI Org Limit	RL	Method	Prep Type
1,2-Dibromoethane (EDB)	ND		ug/L	0.05		0.0050	524.3	Total/NA
1,2-Dibromo-3-Chloropropane	ND		ug/L	0.2		0.0050	524.3	Total/NA
1,2,3-Trichloropropane	ND		ug/L		0.6000	0.0050	524.3	Total/NA
1,2,3-Trichloropropane	ND		ug/L		0.6000	0.041	504.1	Total/NA
1,2-Dibromo-3-Chloropropane	ND		ug/L	0.2		0.010	504.1	Total/NA
1,2-Dibromoethane	ND		ug/L	0.05		0.010	504.1	Total/NA

Surrogate Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL (70-130)	BFB (70-130)	DCA (70-130)
380-20077-1	BWS2253-J1-AQ	98	96	106
380-20077-2	BWS2253-J1-TB	94	100	102

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL (70-130)	BFB (70-130)	DCA (70-130)
LCS 380-17074/8	Lab Control Sample	101	101	100
LCSD 380-17074/9	Lab Control Sample Dup	100	98	103
MB 380-17074/11	Method Blank	97	102	102

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL (50-150)	BFB (50-150)	DCA (50-150)
MRL 380-17074/10	Lab Control Sample	100	98	106

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)
380-20077-1	BWS2253-J1-AQ	106	109	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: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)
LCS 380-17517/4	Lab Control Sample	100	108	99
LCSD 380-17517/5	Lab Control Sample Dup	100	105	99
MB 380-17517/8	Method Blank	101	112	96
MRL 380-17517/3	Lab Control Sample	103	106	100
MRL 380-17517/7	Lab Control Sample	102	103	98

Surrogate Legend

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

Method: 524.3 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	yl methyl- (70-130)	BFB (70-130)	DCZ (70-130)
380-20077-1	BWS2253-J1-AQ	99	102	96
380-20077-2	BWS2253-J1-TB	96	102	95

Surrogate Legend

tert-Butyl methyl-d3 ether = tert-Butyl methyl-d3 ether
 BFB = 4-Bromofluorobenzene (Surr)
 DCZ = 1,2-Dichlorobenzene-d4 (Surr)

Method: 524.3 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	yl methyl- (70-130)	BFB (70-130)	DCZ (70-130)
810-37424-AI-1 DU	Duplicate	102	99	98
810-37424-BF-3 MS	Matrix Spike	101	100	96
MB 810-32314/4	Method Blank	97	101	97

Surrogate Legend

tert-Butyl methyl-d3 ether = tert-Butyl methyl-d3 ether
 BFB = 4-Bromofluorobenzene (Surr)
 DCZ = 1,2-Dichlorobenzene-d4 (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2NMX (70-130)	TPP (70-130)	PRY (70-130)
380-20077-1	BWS2253-J1-AQ	93	106	92
380-20077-1	BWS2253-J1-AQ	100	117	101

Surrogate Legend

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

Surrogate Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	2NMX (70-130)	TPP (70-130)	PRY (70-130)
380-19571-Z-1-A MS	Matrix Spike	95	106	96
380-19571-Z-3-A DU	Duplicate	93	105	93
380-19915-C-1-A MS	Matrix Spike	101	113	103
380-19915-C-1-B MSD	Matrix Spike Duplicate	98	131 S1+	102
LCS 380-16671/3-A	Lab Control Sample	94	103	95
LCS 380-17148/3-A	Lab Control Sample	97	122	110
LCSD 380-16671/4-A	Lab Control Sample Dup	92	101	95
LCSD 380-17148/4-A	Lab Control Sample Dup	99	113	102
MB 380-16671/1-A	Method Blank	92	102	94
MB 380-17148/1-A	Method Blank	101	117	106
MRL 380-16671/2-A	Lab Control Sample	93	97	91
MRL 380-17148/2-A	Lab Control Sample	99	121	105

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

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

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-20077-1	BWS2253-J1-AQ	97
380-20077-2	BWS2253-J1-TB	102

Surrogate Legend
 DBPP = 1,2-Dibromopropane (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-20084-D-11-A DU	Duplicate	102
380-20084-F-10-A MS	Matrix Spike	104
LCS 380-17299/11-A	Lab Control Sample	93
MBL 380-17299/12-A	Method Blank	109
MRL 380-17299/10-A	Lab Control Sample	105
MRL 380-17299/9-A	Lab Control Sample	95

Surrogate Legend
 DBPP = 1,2-Dibromopropane (Surr)

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i

Matrix: BlankMatrix

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Acenaphtl (65-113)	Phenanth (80-111)	CRY (60-139)	NPT (44-119)	PHL (20-121)	PRY (36-161)	TBP (44-159)
99895-B1	Method Blank	93	92	86	102	95	81	130

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Surrogate Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Matrix: BlankMatrix

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		Acenaphtl (65-113)	Phenanth (80-111)	CRY (60-139)	NPT (44-119)	PHL (20-121)	PRY (36-161)	TBP (44-159)
99895-BS1	Lab Control Sample	93	93	95	102	116	88	148
99895-BS2	Lab Control Sample Dup	89	93	101	94	100	84	146

Surrogate Legend

- (d10-Acenaphthene) = (d10-Acenaphthene)
- (d10-Phenanthrene) = (d10-Phenanthrene)
- CRY = (d12-Chrysene)
- NPT = (d8-Naphthalene)
- PHL = (d5-Phenol)
- PRY = (d12-Perylene)
- TBP = (2,4,6-Tribromophenol)

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		Acenaphtl (45-118)	Phenanth (56-123)	CRY (36-142)	NPT (20-112)	PHL (0-85)	PRY (36-161)	TBP (31-143)
380-20077-1	BWS2253-J1-AQ	109	90	68	88	25	84	128

Surrogate Legend

- (d10-Acenaphthene) = (d10-Acenaphthene)
- (d10-Phenanthrene) = (d10-Phenanthrene)
- CRY = (d12-Chrysene)
- NPT = (d8-Naphthalene)
- PHL = (d5-Phenol)
- PRY = (d12-Perylene)
- TBP = (2,4,6-Tribromophenol)

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
380-20077-1	BWS2253-J1-AQ	73	105

Surrogate Legend

- BB = BROMOBENZENE
- HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
22DSI016WL	Lab Control Sample	85	101
22I073-01M	Matrix Spike	83	109
22I073-01M	Matrix Spike	86	107
22I073-01S	Matrix Spike Duplicate	89	107
22I073-01S	Matrix Spike Duplicate	99	108
22J5I016WL	Lab Control Sample	81	91

Surrogate Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
22J8I016WL	Lab Control Sample	93	93

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB	XACOSAI
22DSI016WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-20077-1	BWS2253-J1-AQ	85
380-20077-2	BWS2253-J1-TB	89

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
22I073-01M	Matrix Spike	118
22I073-01S	Matrix Spike Duplicate	118

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
22VG39I08B	Method Blank	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
22VG39I08C	LCD	119
22VG39I08L	Lab Control Sample	120

Surrogate Legend

BFB = BROMOFLUOROBENZENE

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-17517/8
Matrix: Water
Analysis Batch: 17517

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			09/15/22 14:57	1
1,1,1-Trichloroethane	ND		0.50	ug/L			09/15/22 14:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			09/15/22 14:57	1
1,1,2-Trichloroethane	ND		0.50	ug/L			09/15/22 14:57	1
1,1-Dichloroethane	ND		0.50	ug/L			09/15/22 14:57	1
1,1-Dichlorethylene	ND		0.50	ug/L			09/15/22 14:57	1
1,1-Dichloropropene	ND		0.50	ug/L			09/15/22 14:57	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			09/15/22 14:57	1
1,2,3-Trichloropropane	ND		0.50	ug/L			09/15/22 14:57	1
1,2,4-Trichlorobenzene	ND		0.50	ug/L			09/15/22 14:57	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
1,2-Dichloroethane	ND		0.50	ug/L			09/15/22 14:57	1
1,2-Dichloropropane	ND		0.50	ug/L			09/15/22 14:57	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
1,3-Dichloropropane	ND		0.50	ug/L			09/15/22 14:57	1
2,2-Dichloropropane	ND		0.50	ug/L			09/15/22 14:57	1
2-Butanone (MEK)	ND		5.0	ug/L			09/15/22 14:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	ug/L			09/15/22 14:57	1
Acetone	ND		500	ug/L			09/15/22 14:57	1
Benzene	ND		0.50	ug/L			09/15/22 14:57	1
Bromobenzene	ND		0.50	ug/L			09/15/22 14:57	1
Bromochloromethane	ND		0.50	ug/L			09/15/22 14:57	1
Bromodichloromethane	ND		0.50	ug/L			09/15/22 14:57	1
Bromoform	ND		0.50	ug/L			09/15/22 14:57	1
Bromomethane (Methyl Bromide)	ND		0.50	ug/L			09/15/22 14:57	1
Carbon disulfide	ND		0.50	ug/L			09/15/22 14:57	1
Carbon tetrachloride	ND		0.50	ug/L			09/15/22 14:57	1
Chlorobenzene	ND		0.50	ug/L			09/15/22 14:57	1
Chlorodibromomethane	ND		0.50	ug/L			09/15/22 14:57	1
Chloroethane	ND		0.50	ug/L			09/15/22 14:57	1
Chloroform (Trichloromethane)	ND		0.50	ug/L			09/15/22 14:57	1
Dichloromethane	ND		0.50	ug/L			09/15/22 14:57	1
cis-1,2-Dichloroethylene	ND		0.50	ug/L			09/15/22 14:57	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			09/15/22 14:57	1
Dibromomethane	ND		0.50	ug/L			09/15/22 14:57	1
Dichlorodifluoromethane	ND		0.50	ug/L			09/15/22 14:57	1
Ethylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
Hexachlorobutadiene	ND		0.50	ug/L			09/15/22 14:57	1
Isopropylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
m,p-Xylenes	ND		0.50	ug/L			09/15/22 14:57	1
m-Dichlorobenzene (1,3-DCB)	ND		0.50	ug/L			09/15/22 14:57	1
Methyl-tert-butyl Ether (MTBE)	ND		0.50	ug/L			09/15/22 14:57	1
Naphthalene	ND		0.50	ug/L			09/15/22 14:57	1
n-Butylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
N-Propylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
o-Dichlorobenzene (1,2-DCB)	ND		0.50	ug/L			09/15/22 14:57	1
o-Chlorotoluene	ND		0.50	ug/L			09/15/22 14:57	1
o-Xylene	ND		0.50	ug/L			09/15/22 14:57	1

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-17517/8
Matrix: Water
Analysis Batch: 17517

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			09/15/22 14:57	1
p-Dichlorobenzene (1,4-DCB)	ND		0.50	ug/L			09/15/22 14:57	1
p-Isopropyltoluene	ND		0.50	ug/L			09/15/22 14:57	1
sec-Butylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
Styrene	ND		0.50	ug/L			09/15/22 14:57	1
Tert-amyl methyl ether	ND		3.0	ug/L			09/15/22 14:57	1
Tert-butyl ethyl ether	ND		3.0	ug/L			09/15/22 14:57	1
tert-Butylbenzene	ND		0.50	ug/L			09/15/22 14:57	1
Tetrachloroethene (PCE)	ND		0.50	ug/L			09/15/22 14:57	1
Toluene	ND		0.50	ug/L			09/15/22 14:57	1
1,3-Dichloropropene, Total	ND		0.50	ug/L			09/15/22 14:57	1
Xylenes, Total	ND		0.50	ug/L			09/15/22 14:57	1
trans-1,2-Dichloroethylene	ND		0.50	ug/L			09/15/22 14:57	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			09/15/22 14:57	1
Trichloroethylene (TCE)	ND		0.50	ug/L			09/15/22 14:57	1
Trichlorofluoromethane (Freon 11)	ND		0.50	ug/L			09/15/22 14:57	1
Vinyl Chloride (VC)	ND		0.30	ug/L			09/15/22 14:57	1
Trichlorotrifluoroethane	ND		0.50	ug/L			09/15/22 14:57	1
Bromoethane	ND		0.50	ug/L			09/15/22 14:57	1
Chloromethane (methyl chloride)	ND		0.50	ug/L			09/15/22 14:57	1
Diisopropyl ether	ND		3.0	ug/L			09/15/22 14:57	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/15/22 14:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		09/15/22 14:57	1
4-Bromofluorobenzene (Surr)	112		70 - 130		09/15/22 14:57	1
Toluene-d8 (Surr)	96		70 - 130		09/15/22 14:57	1

Lab Sample ID: LCS 380-17517/4
Matrix: Water
Analysis Batch: 17517

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	5.37		ug/L		107	70 - 130
1,1,1-Trichloroethane	5.00	5.57		ug/L		111	70 - 130
1,1,2,2-Tetrachloroethane	5.00	5.46		ug/L		109	70 - 130
1,1,2-Trichloroethane	5.00	5.22		ug/L		104	70 - 130
1,1-Dichloroethane	5.00	5.96		ug/L		119	70 - 130
1,1-Dichloroethylene	5.00	6.27		ug/L		125	70 - 130
1,1-Dichloropropene	5.00	5.51		ug/L		110	70 - 130
1,2,3-Trichlorobenzene	5.00	5.09		ug/L		102	70 - 130
1,2,3-Trichloropropane	5.00	5.34		ug/L		107	70 - 130
1,2,4-Trichlorobenzene	5.00	5.31		ug/L		106	70 - 130
1,2,4-Trimethylbenzene	5.00	6.12		ug/L		122	70 - 130
1,2-Dichloroethane	5.00	5.41		ug/L		108	70 - 130
1,2-Dichloropropane	5.00	5.06		ug/L		101	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17517/4
Matrix: Water
Analysis Batch: 17517

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	5.00	6.08		ug/L		122	70 - 130
1,3-Dichloropropane	5.00	5.23		ug/L		105	70 - 130
2,2-Dichloropropane	5.00	5.90		ug/L		118	70 - 130
2-Butanone (MEK)	50.0	55.3		ug/L		111	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	51.4		ug/L		103	70 - 130
Acetone	50.0	49.3	J	ug/L		99	70 - 130
Benzene	5.00	5.59		ug/L		112	70 - 130
Bromobenzene	5.00	6.01		ug/L		120	70 - 130
Bromochloromethane	5.00	6.03		ug/L		121	70 - 130
Bromodichloromethane	5.00	5.32		ug/L		106	70 - 130
Bromoform	5.00	5.29		ug/L		106	70 - 130
Bromomethane (Methyl Bromide)	5.00	6.00		ug/L		120	70 - 130
Carbon disulfide	5.00	5.84		ug/L		117	70 - 130
Carbon tetrachloride	5.00	5.57		ug/L		111	70 - 130
Chlorobenzene	5.00	5.46		ug/L		109	70 - 130
Chlorodibromomethane	5.00	5.07		ug/L		101	70 - 130
Dichloromethane	5.00	5.69		ug/L		114	70 - 130
cis-1,3-Dichloropropene	5.00	4.94		ug/L		99	70 - 130
Ethylbenzene	5.00	5.50		ug/L		110	70 - 130
Hexachlorobutadiene	5.00	5.27		ug/L		105	70 - 130
Isopropylbenzene	5.00	6.04		ug/L		121	70 - 130
m,p-Xylenes	10.0	11.6		ug/L		116	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	6.01		ug/L		120	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	5.46		ug/L		109	70 - 130
Naphthalene	5.00	4.71		ug/L		94	70 - 130
n-Butylbenzene	5.00	5.91		ug/L		118	70 - 130
N-Propylbenzene	5.00	5.69		ug/L		114	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	5.72		ug/L		114	70 - 130
o-Chlorotoluene	5.00	5.85		ug/L		117	70 - 130
o-Xylene	5.00	5.54		ug/L		111	70 - 130
p-Chlorotoluene	5.00	5.75		ug/L		115	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	6.04		ug/L		121	70 - 130
p-Isopropyltoluene	5.00	6.15		ug/L		123	70 - 130
sec-Butylbenzene	5.00	6.25		ug/L		125	70 - 130
Styrene	5.00	5.51		ug/L		110	70 - 130
Tert-amyl methyl ether	5.00	4.94		ug/L		99	70 - 130
Tert-butyl ethyl ether	5.00	5.78		ug/L		116	70 - 130
tert-Butylbenzene	5.00	6.00		ug/L		120	70 - 130
Tetrachloroethene (PCE)	5.00	5.49		ug/L		110	70 - 130
Toluene	5.00	5.42		ug/L		108	70 - 130
1,3-Dichloropropene, Total	10.0	9.48		ug/L		95	70 - 130
Xylenes, Total	15.0	17.1		ug/L		114	70 - 130
trans-1,2-Dichloroethylene	5.00	5.94		ug/L		119	70 - 130
trans-1,3-Dichloropropene	5.00	4.54		ug/L		91	70 - 130
Trichloroethylene (TCE)	5.00	5.55		ug/L		111	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	6.29		ug/L		126	70 - 130
Vinyl Chloride (VC)	5.00	6.05		ug/L		121	70 - 130
Trichlorotrifluoroethane	5.00	5.85		ug/L		117	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17517/4
Matrix: Water
Analysis Batch: 17517

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	6.18		ug/L		124	70 - 130
Diisopropyl ether	5.00	5.90		ug/L		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 380-17517/5
Matrix: Water
Analysis Batch: 17517

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	4.64		ug/L		93	70 - 130	15	20
1,1,1-Trichloroethane	5.00	4.65		ug/L		93	70 - 130	18	20
1,1,2,2-Tetrachloroethane	5.00	5.03		ug/L		101	70 - 130	8	20
1,1,2-Trichloroethane	5.00	4.62		ug/L		92	70 - 130	12	20
1,1-Dichloroethane	5.00	5.07		ug/L		101	70 - 130	16	20
1,1-Dichlorethylene	5.00	5.26		ug/L		105	70 - 130	18	20
1,1-Dichloropropene	5.00	4.69		ug/L		94	70 - 130	16	20
1,2,3-Trichlorobenzene	5.00	4.95		ug/L		99	70 - 130	3	20
1,2,3-Trichloropropane	5.00	5.06		ug/L		101	70 - 130	5	20
1,2,4-Trichlorobenzene	5.00	4.96		ug/L		99	70 - 130	7	20
1,2,4-Trimethylbenzene	5.00	5.30		ug/L		106	70 - 130	14	20
1,2-Dichloroethane	5.00	4.68		ug/L		94	70 - 130	15	20
1,2-Dichloropropane	5.00	4.56		ug/L		91	70 - 130	10	20
1,3,5-Trimethylbenzene	5.00	5.39		ug/L		108	70 - 130	12	20
1,3-Dichloropropane	5.00	4.77		ug/L		95	70 - 130	9	20
2,2-Dichloropropane	5.00	4.92		ug/L		98	70 - 130	18	20
2-Butanone (MEK)	50.0	45.4		ug/L		91	70 - 130	20	20
4-Methyl-2-pentanone (MIBK)	50.0	46.8		ug/L		94	70 - 130	9	20
Acetone	50.0	42.3	J	ug/L		85	70 - 130	15	20
Benzene	5.00	4.72		ug/L		94	70 - 130	17	20
Bromobenzene	5.00	5.39		ug/L		108	70 - 130	11	20
Bromochloromethane	5.00	4.83	*1	ug/L		97	70 - 130	22	20
Bromodichloromethane	5.00	4.53		ug/L		91	70 - 130	16	20
Bromoform	5.00	4.99		ug/L		100	70 - 130	6	20
Bromomethane (Methyl Bromide)	5.00	5.04		ug/L		101	70 - 130	17	20
Carbon disulfide	5.00	4.90		ug/L		98	70 - 130	17	20
Carbon tetrachloride	5.00	4.52	*1	ug/L		90	70 - 130	21	20
Chlorobenzene	5.00	4.79		ug/L		96	70 - 130	13	20
Chlorodibromomethane	5.00	4.46		ug/L		89	70 - 130	13	20
Dichloromethane	5.00	4.89		ug/L		98	70 - 130	15	20
cis-1,3-Dichloropropene	5.00	4.29		ug/L		86	70 - 130	14	20
Ethylbenzene	5.00	4.85		ug/L		97	70 - 130	13	20
Hexachlorobutadiene	5.00	4.71		ug/L		94	70 - 130	11	20
Isopropylbenzene	5.00	5.38		ug/L		108	70 - 130	12	20
m,p-Xylenes	10.0	10.1		ug/L		101	70 - 130	13	20

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCSD 380-17517/5
Matrix: Water
Analysis Batch: 17517

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Dichlorobenzene (1,3-DCB)	5.00	5.48		ug/L		110	70 - 130	9	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.87		ug/L		97	70 - 130	11	20
Naphthalene	5.00	4.56		ug/L		91	70 - 130	3	20
n-Butylbenzene	5.00	5.25		ug/L		105	70 - 130	12	20
N-Propylbenzene	5.00	4.91		ug/L		98	70 - 130	15	20
o-Dichlorobenzene (1,2-DCB)	5.00	5.28		ug/L		106	70 - 130	8	20
o-Chlorotoluene	5.00	5.36		ug/L		107	70 - 130	9	20
o-Xylene	5.00	4.80		ug/L		96	70 - 130	14	20
p-Chlorotoluene	5.00	4.96		ug/L		99	70 - 130	15	20
p-Dichlorobenzene (1,4-DCB)	5.00	5.42		ug/L		108	70 - 130	11	20
p-Isopropyltoluene	5.00	5.46		ug/L		109	70 - 130	12	20
sec-Butylbenzene	5.00	5.52		ug/L		110	70 - 130	12	20
Styrene	5.00	4.72		ug/L		94	70 - 130	15	20
Tert-amyl methyl ether	5.00	4.37		ug/L		87	70 - 130	12	20
Tert-butyl ethyl ether	5.00	5.10		ug/L		102	70 - 130	12	20
tert-Butylbenzene	5.00	5.36		ug/L		107	70 - 130	11	20
Tetrachloroethene (PCE)	5.00	4.82		ug/L		96	70 - 130	13	20
Toluene	5.00	4.74		ug/L		95	70 - 130	13	20
1,3-Dichloropropene, Total	10.0	8.37		ug/L		84	70 - 130	12	20
Xylenes, Total	15.0	14.9		ug/L		100	70 - 130	14	20
trans-1,2-Dichloroethylene	5.00	4.96		ug/L		99	70 - 130	18	20
trans-1,3-Dichloropropene	5.00	4.08		ug/L		82	70 - 130	11	20
Trichloroethylene (TCE)	5.00	4.70		ug/L		94	70 - 130	17	20
Trichlorofluoromethane (Freon 11)	5.00	5.29		ug/L		106	70 - 130	17	20
Vinyl Chloride (VC)	5.00	5.03		ug/L		101	70 - 130	18	20
Trichlorotrifluoroethane	5.00	5.00		ug/L		100	70 - 130	16	20
Bromoethane	5.00	5.06		ug/L		101	70 - 130	20	20
Diisopropyl ether	5.00	5.14		ug/L		103	70 - 130	14	20

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

Lab Sample ID: MRL 380-17517/3
Matrix: Water
Analysis Batch: 17517

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
m,p-Xylenes	0.500	0.499	J	ug/L		100	50 - 150
Xylenes, Total	0.500	0.499	J	ug/L		100	50 - 150
Vinyl Chloride (VC)	0.250	0.273	J	ug/L		109	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130
Toluene-d8 (Surr)	100		70 - 130

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MRL 380-17517/7
Matrix: Water
Analysis Batch: 17517

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	0.539		ug/L		108	50 - 150
1,1,1-Trichloroethane	0.500	0.586		ug/L		117	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.653		ug/L		131	50 - 150
1,1,2-Trichloroethane	0.500	0.591		ug/L		118	50 - 150
1,1-Dichloroethane	0.500	0.721		ug/L		144	50 - 150
1,1-Dichlorethylene	0.500	0.731		ug/L		146	50 - 150
1,1-Dichloropropene	0.500	0.607		ug/L		121	50 - 150
1,2,3-Trichlorobenzene	0.500	0.634		ug/L		127	50 - 150
1,2,3-Trichloropropane	0.500	0.628		ug/L		126	50 - 150
1,2,4-Trichlorobenzene	0.500	0.604		ug/L		121	50 - 150
1,2,4-Trimethylbenzene	0.500	0.594		ug/L		119	50 - 150
1,2-Dichloroethane	0.500	0.624		ug/L		125	50 - 150
1,2-Dichloropropane	0.500	0.590		ug/L		118	50 - 150
1,3,5-Trimethylbenzene	0.500	0.609		ug/L		122	50 - 150
1,3-Dichloropropane	0.500	0.584		ug/L		117	50 - 150
2,2-Dichloropropane	0.500	0.653		ug/L		131	50 - 150
2-Butanone (MEK)	5.00	6.00		ug/L		120	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	5.36		ug/L		107	50 - 150
Acetone	5.00	ND		ug/L		56	50 - 150
Benzene	0.500	0.634		ug/L		127	50 - 150
Bromobenzene	0.500	0.635		ug/L		127	50 - 150
Bromochloromethane	0.500	0.698		ug/L		140	50 - 150
Bromodichloromethane	0.500	0.563		ug/L		113	50 - 150
Bromoform	0.500	0.604		ug/L		121	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.744		ug/L		149	50 - 150
Carbon disulfide	0.500	0.629		ug/L		126	50 - 150
Carbon tetrachloride	0.500	0.518		ug/L		104	50 - 150
Chlorobenzene	0.500	0.602		ug/L		120	50 - 150
Chlorodibromomethane	0.500	0.488	J	ug/L		98	50 - 150
Dichloromethane	0.500	0.679		ug/L		136	50 - 150
cis-1,3-Dichloropropene	0.500	0.467	J	ug/L		93	50 - 150
Ethylbenzene	0.500	0.600		ug/L		120	50 - 150
Hexachlorobutadiene	0.500	0.675		ug/L		135	50 - 150
Isopropylbenzene	0.500	0.634		ug/L		127	50 - 150
m,p-Xylenes	1.00	1.22		ug/L		122	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.691		ug/L		138	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.634		ug/L		127	50 - 150
Naphthalene	0.500	0.556		ug/L		111	50 - 150
n-Butylbenzene	0.500	0.614		ug/L		123	50 - 150
N-Propylbenzene	0.500	0.604		ug/L		121	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.642		ug/L		128	50 - 150
o-Chlorotoluene	0.500	0.676		ug/L		135	50 - 150
o-Xylene	0.500	0.585		ug/L		117	50 - 150
p-Chlorotoluene	0.500	0.594		ug/L		119	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.684		ug/L		137	50 - 150
p-Isopropyltoluene	0.500	0.592		ug/L		118	50 - 150
sec-Butylbenzene	0.500	0.620		ug/L		124	50 - 150
Styrene	0.500	0.509		ug/L		102	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MRL 380-17517/7
Matrix: Water
Analysis Batch: 17517

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Tert-amyl methyl ether	0.500	0.530	J	ug/L		106	50 - 150
Tert-butyl ethyl ether	0.500	0.634	J	ug/L		127	50 - 150
tert-Butylbenzene	0.500	0.611		ug/L		122	50 - 150
Tetrachloroethene (PCE)	0.500	0.616		ug/L		123	50 - 150
Toluene	0.500	0.611		ug/L		122	50 - 150
1,3-Dichloropropene, Total	1.00	0.882		ug/L		88	50 - 150
Xylenes, Total	1.50	1.81		ug/L		121	50 - 150
trans-1,2-Dichloroethylene	0.500	0.730		ug/L		146	50 - 150
trans-1,3-Dichloropropene	0.500	0.415	J	ug/L		83	50 - 150
Trichloroethylene (TCE)	0.500	0.625		ug/L		125	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.581		ug/L		116	50 - 150
Vinyl Chloride (VC)	0.500	0.672		ug/L		134	50 - 150
Trichlorotrifluoroethane	0.500	0.633		ug/L		127	50 - 150
Bromoethane	0.500	0.679		ug/L		136	50 - 150
Diisopropyl ether	0.500	0.660	J	ug/L		132	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Toluene-d8 (Surr)	98		70 - 130

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

Lab Sample ID: MB 380-17074/11
Matrix: Water
Analysis Batch: 17074

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			09/12/22 18:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		09/12/22 18:29	1
4-Bromofluorobenzene (Surr)	102		70 - 130		09/12/22 18:29	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		09/12/22 18:29	1

Lab Sample ID: LCS 380-17074/8
Matrix: Water
Analysis Batch: 17074

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	4.44		ug/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCSD 380-17074/9
Matrix: Water
Analysis Batch: 17074

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	4.91		ug/L		98	70 - 130	10	20
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
Toluene-d8 (Surr)	100		70 - 130						
4-Bromofluorobenzene (Surr)	98		70 - 130						
1,2-Dichloroethane-d4 (Surr)	103		70 - 130						

Lab Sample ID: MRL 380-17074/10
Matrix: Water
Analysis Batch: 17074

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	2.19		ug/L		109	50 - 150		
MRL MRL									
Surrogate	%Recovery	Qualifier	Limits						
Toluene-d8 (Surr)	100		50 - 150						
4-Bromofluorobenzene (Surr)	98		50 - 150						
1,2-Dichloroethane-d4 (Surr)	106		50 - 150						

Method: 524.3 - Volatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 810-32314/4
Matrix: Water
Analysis Batch: 32314

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.0050	ug/L			09/20/22 12:08	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	ug/L			09/20/22 12:08	1
1,2,3-Trichloropropane	ND		0.0050	ug/L			09/20/22 12:08	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
tert-Butyl methyl-d3 ether	97		70 - 130		09/20/22 12:08	1		
4-Bromofluorobenzene (Surr)	101		70 - 130		09/20/22 12:08	1		
1,2-Dichlorobenzene-d4 (Surr)	97		70 - 130		09/20/22 12:08	1		

Lab Sample ID: 810-37424-BF-3 MS
Matrix: Water
Analysis Batch: 32314

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
1,2-Dibromoethane (EDB)	ND		0.0500	0.0438		ug/L		88	70 - 130
1,2-Dibromo-3-Chloropropane	ND		0.0500	0.0514		ug/L		103	70 - 130
1,2,3-Trichloropropane	ND		0.0500	0.0506		ug/L		101	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
tert-Butyl methyl-d3 ether	101		70 - 130						
4-Bromofluorobenzene (Surr)	100		70 - 130						

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 524.3 - Volatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 810-37424-BF-3 MS
Matrix: Water
Analysis Batch: 32314

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
1,2-Dichlorobenzene-d4 (Surr)	96		70 - 130

Lab Sample ID: 810-37424-AI-1 DU
Matrix: Water
Analysis Batch: 32314

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1,2-Dibromoethane (EDB)	ND		ND		ug/L		NC	
1,2-Dibromo-3-Chloropropane	ND		ND		ug/L		NC	
1,2,3-Trichloropropane	ND		ND		ug/L		NC	

<i>Surrogate</i>	<i>%Recovery</i>	<i>DU DU Qualifier</i>	<i>Limits</i>
tert-Butyl methyl-d3 ether	102		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
1,2-Dichlorobenzene-d4 (Surr)	98		70 - 130

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

Lab Sample ID: MB 380-16671/1-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16671

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier							
2,4'-DDD	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
2,4'-DDE	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
2,4'-DDT	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
2,4-Dinitrotoluene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
2,6-Dinitrotoluene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
4,4'-DDD	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
4,4'-DDE	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
4,4'-DDT	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Acenaphthene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Acenaphthylene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Acetochlor	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Alachlor	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
alpha-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
alpha-Chlordane	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
Anthracene	ND		0.020	ug/L		09/08/22 10:40	09/12/22 11:46		1
Atrazine	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
Benz(a)anthracene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
Benzo[a]pyrene	ND	^3+	0.020	ug/L		09/08/22 10:40	09/12/22 11:46		1
Benzo[b]fluoranthene	ND	^3+	0.020	ug/L		09/08/22 10:40	09/12/22 11:46		1
Benzo[g,h,i]perylene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
Benzo[k]fluoranthene	ND	^3+	0.020	ug/L		09/08/22 10:40	09/12/22 11:46		1
beta-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Bromacil	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46		1
Butachlor	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46		1
Butylbenzylphthalate	ND		0.50	ug/L		09/08/22 10:40	09/12/22 11:46		1

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-16671/1-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16671

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Caffeine	ND	^3-	0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Chlorobenzilate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Chloroneb	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Chlorpyrifos	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Chrysene	ND		0.020	ug/L		09/08/22 10:40	09/12/22 11:46	1
delta-BHC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		09/08/22 10:40	09/12/22 11:46	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		09/08/22 10:40	09/12/22 11:46	1
Diazinon (Qualitative)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Diclorvos (DDVP)	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Dieldrin	ND		0.20	ug/L		09/08/22 10:40	09/12/22 11:46	1
Diethylphthalate	ND		0.50	ug/L		09/08/22 10:40	09/12/22 11:46	1
Dimethoate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Dimethylphthalate	ND		0.50	ug/L		09/08/22 10:40	09/12/22 11:46	1
Di-n-butyl phthalate	ND		1.0	ug/L		09/08/22 10:40	09/12/22 11:46	1
Di-n-octyl phthalate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Endosulfan I (Alpha)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Endosulfan II (Beta)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Endosulfan sulfate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Endrin	ND	^3+	0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Endrin aldehyde	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
EPTC	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Fluoranthene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Fluorene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
gamma-Chlordane	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Heptachlor	ND		0.040	ug/L		09/08/22 10:40	09/12/22 11:46	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Hexachlorobenzene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Isophorone	ND		0.50	ug/L		09/08/22 10:40	09/12/22 11:46	1
gamma-BHC (Lindane)	ND		0.040	ug/L		09/08/22 10:40	09/12/22 11:46	1
Malathion	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Methoxychlor	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Metolachlor	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Metribuzin	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Molinate	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Naphthalene	ND		0.30	ug/L		09/08/22 10:40	09/12/22 11:46	1
Parathion	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/08/22 10:40	09/12/22 11:46	1
Phenanthrene	ND		0.040	ug/L		09/08/22 10:40	09/12/22 11:46	1
Propachlor	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Pyrene	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Simazine	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Terbacil	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
Terbutylazine	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-16671/1-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16671

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thiobencarb	ND		0.20	ug/L		09/08/22 10:40	09/12/22 11:46	1
trans-Nonachlor	ND		0.050	ug/L		09/08/22 10:40	09/12/22 11:46	1
Trifluralin	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
1-Methylnaphthalene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1
2-Methylnaphthalene	ND		0.10	ug/L		09/08/22 10:40	09/12/22 11:46	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.21	T J N	ug/L		2.50	124-18-5	09/08/22 10:40	09/12/22 11:46	1
Tetradecanoic acid	0.583	T J N	ug/L		5.92	544-63-8	09/08/22 10:40	09/12/22 11:46	1
Methyltris(trimethylsiloxy)silane	2.00	T J N	ug/L		7.87	17928-28-8	09/08/22 10:40	09/12/22 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		70 - 130	09/08/22 10:40	09/12/22 11:46	1
Triphenylphosphate	102		70 - 130	09/08/22 10:40	09/12/22 11:46	1
Perylene-d12	94		70 - 130	09/08/22 10:40	09/12/22 11:46	1

Lab Sample ID: LCS 380-16671/3-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.98	2.00		ug/L		101	70 - 130
2,4'-DDE	1.98	2.03		ug/L		103	70 - 130
2,4'-DDT	1.98	2.25		ug/L		114	70 - 130
2,4-Dinitrotoluene	1.98	1.48		ug/L		75	70 - 130
2,6-Dinitrotoluene	1.98	1.48		ug/L		75	70 - 130
4,4'-DDD	1.98	2.15		ug/L		109	70 - 130
4,4'-DDE	1.98	2.12		ug/L		107	70 - 130
4,4'-DDT	1.98	2.13		ug/L		108	70 - 130
Acenaphthene	1.98	1.70		ug/L		86	70 - 130
Acenaphthylene	1.98	1.78		ug/L		90	70 - 130
Acetochlor	1.98	1.81		ug/L		91	70 - 130
Alachlor	1.98	1.87		ug/L		95	70 - 130
alpha-BHC	1.98	1.88		ug/L		95	70 - 130
alpha-Chlordane	1.98	1.62		ug/L		82	70 - 130
Anthracene	1.98	1.87		ug/L		95	70 - 130
Atrazine	1.98	1.92		ug/L		97	70 - 130
Benz(a)anthracene	1.98	2.21		ug/L		112	70 - 130
Benzo[a]pyrene	1.98	2.02		ug/L		102	70 - 130
Benzo[b]fluoranthene	1.98	1.98		ug/L		100	70 - 130
Benzo[g,h,i]perylene	1.98	1.92		ug/L		97	70 - 130
Benzo[k]fluoranthene	1.98	2.11		ug/L		107	70 - 130
beta-BHC	1.98	1.93		ug/L		98	70 - 130
Bromacil	1.98	1.43		ug/L		73	70 - 130
Butachlor	1.98	1.97		ug/L		99	70 - 130
Butylbenzylphthalate	1.98	2.11		ug/L		107	70 - 130
Caffeine	1.98	0.644	*-	ug/L		33	45 - 137
Chlorobenzilate	1.98	2.22		ug/L		112	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-16671/3-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroneb	1.98	2.10		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.17		ug/L		110	70 - 130
Chlorpyrifos	1.98	2.17		ug/L		110	70 - 130
Chrysene	1.98	2.20		ug/L		111	70 - 130
delta-BHC	1.98	1.89		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.13		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.88		ug/L		95	70 - 130
Diazinon (Qualitative)	1.98	1.67		ug/L		84	15 - 132
Dibenz(a,h)anthracene	1.98	2.05		ug/L		104	70 - 130
Diclorvos (DDVP)	1.98	1.86		ug/L		94	70 - 130
Dieldrin	1.98	2.06		ug/L		104	70 - 130
Diethylphthalate	1.98	1.85		ug/L		94	70 - 130
Dimethoate	1.98	0.558	*	ug/L		28	35 - 100
Dimethylphthalate	1.98	1.73		ug/L		88	70 - 130
Di-n-butyl phthalate	3.95	4.14		ug/L		105	70 - 130
Di-n-octyl phthalate	1.98	1.73		ug/L		87	70 - 130
Endosulfan I (Alpha)	1.98	2.08		ug/L		105	70 - 130
Endosulfan II (Beta)	1.98	2.26		ug/L		114	70 - 130
Endosulfan sulfate	1.98	2.18		ug/L		110	70 - 130
Endrin	1.98	2.03		ug/L		103	70 - 130
Endrin aldehyde	1.98	2.12		ug/L		107	70 - 130
EPTC	1.98	1.87		ug/L		95	70 - 130
Fluoranthene	1.98	2.14		ug/L		108	70 - 130
Fluorene	1.98	1.86		ug/L		94	70 - 130
gamma-Chlordane	1.98	1.65		ug/L		83	70 - 130
Heptachlor	1.98	2.01		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.98	1.75		ug/L		89	70 - 130
Hexachlorobenzene	1.98	1.94		ug/L		98	70 - 130
Hexachlorocyclopentadiene	1.98	2.31		ug/L		117	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	2.01		ug/L		101	70 - 130
Isophorone	1.98	1.76		ug/L		89	70 - 130
gamma-BHC (Lindane)	1.98	1.96		ug/L		99	70 - 130
Malathion	1.98	2.09		ug/L		106	70 - 130
Methoxychlor	1.98	2.23		ug/L		113	70 - 130
Metolachlor	1.98	2.07		ug/L		105	70 - 130
Metribuzin	1.98	1.50		ug/L		76	70 - 130
Molinate	1.98	2.02		ug/L		102	70 - 130
Naphthalene	1.98	1.87		ug/L		94	70 - 130
Parathion	1.98	2.16		ug/L		109	70 - 130
Pendimethalin (Penoxaline)	1.98	2.10		ug/L		106	70 - 130
Phenanthrene	1.98	1.86		ug/L		94	70 - 130
Propachlor	1.98	2.09		ug/L		106	70 - 130
Pyrene	1.98	2.23		ug/L		113	70 - 130
Simazine	1.98	1.83		ug/L		92	70 - 130
Terbacil	1.98	1.55		ug/L		78	70 - 130
Terbutylazine	1.98	2.01		ug/L		102	70 - 130
Thiobencarb	1.98	1.90		ug/L		96	70 - 130
trans-Nonachlor	1.98	2.07		ug/L		105	70 - 130
Trifluralin	1.98	1.99		ug/L		101	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-16671/3-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.98	1.88		ug/L		95	70 - 130
2-Methylnaphthalene	1.98	1.87		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	94		70 - 130
Triphenylphosphate	103		70 - 130
Perylene-d12	95		70 - 130

Lab Sample ID: LCSD 380-16671/4-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.99	2.06		ug/L		104	70 - 130	3	20
2,4'-DDE	1.99	2.10		ug/L		105	70 - 130	3	20
2,4'-DDT	1.99	2.33		ug/L		117	70 - 130	4	20
2,4-Dinitrotoluene	1.99	1.56		ug/L		78	70 - 130	5	20
2,6-Dinitrotoluene	1.99	1.54		ug/L		78	70 - 130	4	20
4,4'-DDD	1.99	2.25		ug/L		113	70 - 130	5	20
4,4'-DDE	1.99	2.20		ug/L		110	70 - 130	4	20
4,4'-DDT	1.99	2.21		ug/L		111	70 - 130	4	20
Acenaphthene	1.99	1.77		ug/L		89	70 - 130	4	20
Acenaphthylene	1.99	1.86		ug/L		93	70 - 130	4	20
Acetochlor	1.99	1.86		ug/L		93	70 - 130	3	20
Alachlor	1.99	1.98		ug/L		99	70 - 130	5	20
alpha-BHC	1.99	1.97		ug/L		99	70 - 130	5	20
alpha-Chlordane	1.99	1.66		ug/L		83	70 - 130	3	20
Anthracene	1.99	1.95		ug/L		98	70 - 130	4	20
Atrazine	1.99	1.98		ug/L		99	70 - 130	3	20
Benz(a)anthracene	1.99	2.29		ug/L		115	70 - 130	3	20
Benzo[a]pyrene	1.99	2.11	^3+	ug/L		106	70 - 130	4	20
Benzo[b]fluoranthene	1.99	2.07	^3+	ug/L		104	70 - 130	4	20
Benzo[g,h,i]perylene	1.99	2.03		ug/L		102	70 - 130	6	20
Benzo[k]fluoranthene	1.99	2.28	^3+	ug/L		115	70 - 130	8	20
beta-BHC	1.99	1.99		ug/L		100	70 - 130	3	20
Bromacil	1.99	1.57		ug/L		79	70 - 130	9	20
Butachlor	1.99	2.07		ug/L		104	70 - 130	5	20
Butylbenzylphthalate	1.99	2.17		ug/L		109	70 - 130	3	20
Caffeine	1.99	0.692	^3- *-	ug/L		35	45 - 137	7	20
Chlorobenzilate	1.99	2.26		ug/L		113	70 - 130	2	20
Chloroneb	1.99	2.16		ug/L		109	70 - 130	3	20
Chlorothalonil (Draconil, Bravo)	1.99	2.26		ug/L		113	70 - 130	4	20
Chlorpyrifos	1.99	2.28		ug/L		114	70 - 130	5	20
Chrysene	1.99	2.31		ug/L		116	70 - 130	5	20
delta-BHC	1.99	1.96		ug/L		99	70 - 130	4	20
Di(2-ethylhexyl)adipate	1.99	2.24		ug/L		112	70 - 130	5	20
Bis(2-ethylhexyl) phthalate	1.99	2.01		ug/L		101	70 - 130	7	20
Diazinon (Qualitative)	1.99	1.67		ug/L		84	15 - 132	0	20

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCSD 380-16671/4-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	1.99	2.15		ug/L		108	70 - 130	5	20
Diclorvos (DDVP)	1.99	1.94		ug/L		98	70 - 130	5	20
Dieldrin	1.99	2.16		ug/L		109	70 - 130	5	20
Diethylphthalate	1.99	1.91		ug/L		96	70 - 130	3	20
Dimethoate	1.99	0.606	*-	ug/L		30	35 - 100	8	20
Dimethylphthalate	1.99	1.77		ug/L		89	70 - 130	2	20
Di-n-butyl phthalate	3.98	4.32		ug/L		108	70 - 130	4	20
Di-n-octyl phthalate	1.99	1.83		ug/L		92	70 - 130	6	20
Endosulfan I (Alpha)	1.99	2.15		ug/L		108	70 - 130	3	20
Endosulfan II (Beta)	1.99	2.38		ug/L		120	70 - 130	5	20
Endosulfan sulfate	1.99	2.30		ug/L		115	70 - 130	5	20
Endrin	1.99	2.13	^3+	ug/L		107	70 - 130	5	20
Endrin aldehyde	1.99	2.19		ug/L		110	70 - 130	3	20
EPTC	1.99	1.95		ug/L		98	70 - 130	4	20
Fluoranthene	1.99	2.22		ug/L		112	70 - 130	4	20
Fluorene	1.99	1.94		ug/L		98	70 - 130	4	20
gamma-Chlordane	1.99	1.75		ug/L		88	70 - 130	6	20
Heptachlor	1.99	2.04		ug/L		102	70 - 130	1	20
Heptachlor epoxide (isomer B)	1.99	1.81		ug/L		91	70 - 130	3	20
Hexachlorobenzene	1.99	2.01		ug/L		101	70 - 130	4	20
Hexachlorocyclopentadiene	1.99	2.42		ug/L		121	70 - 130	4	20
Indeno[1,2,3-cd]pyrene	1.99	2.11		ug/L		106	70 - 130	5	20
Isophorone	1.99	1.78		ug/L		89	70 - 130	1	20
gamma-BHC (Lindane)	1.99	1.99		ug/L		100	70 - 130	2	20
Malathion	1.99	2.18		ug/L		109	70 - 130	4	20
Methoxychlor	1.99	2.34		ug/L		118	70 - 130	5	20
Metolachlor	1.99	2.13		ug/L		107	70 - 130	3	20
Metribuzin	1.99	1.57		ug/L		79	70 - 130	4	20
Molinate	1.99	2.09		ug/L		105	70 - 130	4	20
Naphthalene	1.99	1.91		ug/L		96	70 - 130	2	20
Parathion	1.99	2.18		ug/L		109	70 - 130	1	20
Pendimethalin (Penoxaline)	1.99	2.20		ug/L		111	70 - 130	5	20
Phenanthrene	1.99	1.93		ug/L		97	70 - 130	4	20
Propachlor	1.99	2.15		ug/L		108	70 - 130	3	20
Pyrene	1.99	2.31		ug/L		116	70 - 130	4	20
Simazine	1.99	1.84		ug/L		92	70 - 130	1	20
Terbacil	1.99	1.68		ug/L		84	70 - 130	8	20
Terbutylazine	1.99	2.03		ug/L		102	70 - 130	1	20
Thiobencarb	1.99	1.95		ug/L		98	70 - 130	3	20
trans-Nonachlor	1.99	2.10		ug/L		105	70 - 130	1	20
Trifluralin	1.99	2.05		ug/L		103	70 - 130	3	20
1-Methylnaphthalene	1.99	1.95		ug/L		98	70 - 130	4	20
2-Methylnaphthalene	1.99	1.96		ug/L		98	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	92		70 - 130
Triphenylphosphate	101		70 - 130
Perylene-d12	95		70 - 130

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MRL 380-16671/2-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0997	0.134		ug/L		135	50 - 150
2,4'-DDE	0.0997	0.112		ug/L		112	50 - 150
2,4'-DDT	0.0997	0.107		ug/L		107	50 - 150
2,4-Dinitrotoluene	0.0997	0.0829	J	ug/L		83	50 - 150
2,6-Dinitrotoluene	0.0997	0.0834	J	ug/L		84	50 - 150
4,4'-DDD	0.0997	0.107		ug/L		108	50 - 150
4,4'-DDE	0.0997	0.103		ug/L		104	50 - 150
4,4'-DDT	0.0997	0.137		ug/L		137	50 - 150
Acenaphthene	0.0997	0.102		ug/L		102	50 - 150
Acenaphthylene	0.0997	0.0935	J	ug/L		94	50 - 150
Acetochlor	0.0498	0.0530	J	ug/L		106	50 - 150
Alachlor	0.0498	0.0675		ug/L		136	50 - 150
alpha-BHC	0.0997	0.115		ug/L		115	50 - 150
alpha-Chlordane	0.0498	0.0669		ug/L		134	50 - 150
Anthracene	0.0199	0.0270		ug/L		136	50 - 150
Atrazine	0.0498	0.0673		ug/L		135	50 - 150
Benz(a)anthracene	0.0498	0.0531		ug/L		106	50 - 150
Benzo[a]pyrene	0.0199	0.0306	^3+	ug/L		154	50 - 150
Benzo[b]fluoranthene	0.0199	0.0316	^3+	ug/L		159	50 - 150
Benzo[g,h,i]perylene	0.0498	0.0531		ug/L		107	50 - 150
Benzo[k]fluoranthene	0.0199	0.0304	^3+	ug/L		153	50 - 150
beta-BHC	0.0997	0.119		ug/L		120	50 - 150
Bromacil	0.0997	0.0738	J	ug/L		74	50 - 150
Butachlor	0.0498	0.0639		ug/L		128	50 - 150
Butylbenzylphthalate	0.149	0.197	J	ug/L		132	50 - 150
Caffeine	0.0498	0.0227	J ^3-	ug/L		46	50 - 150
Chlorobenzilate	0.0997	0.110		ug/L		111	50 - 150
Chloroneb	0.0997	0.113		ug/L		113	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0997	0.0975	J	ug/L		98	50 - 150
Chlorpyrifos	0.0498	0.0501		ug/L		101	50 - 150
Chrysene	0.0199	0.0287		ug/L		144	50 - 150
delta-BHC	0.0997	0.117		ug/L		117	50 - 150
Di(2-ethylhexyl)adipate	0.299	0.424	J	ug/L		142	50 - 150
Bis(2-ethylhexyl) phthalate	0.598	0.777		ug/L		130	50 - 150
Diazinon (Qualitative)	0.0997	0.101		ug/L		101	15 - 132
Dibenz(a,h)anthracene	0.0498	0.0506		ug/L		102	50 - 150
Diclorvos (DDVP)	0.0498	0.0575		ug/L		115	50 - 150
Dieldrin	0.0997	0.121	J	ug/L		121	50 - 150
Diethylphthalate	0.149	0.172	J	ug/L		115	50 - 150
Dimethoate	0.0997	0.0424	J	ug/L		43	35 - 100
Dimethylphthalate	0.299	0.295	J	ug/L		99	50 - 150
Di-n-butyl phthalate	0.299	0.348	J	ug/L		116	49 - 243
Di-n-octyl phthalate	0.0997	0.130		ug/L		130	50 - 150
Endosulfan I (Alpha)	0.0997	0.107		ug/L		107	50 - 150
Endosulfan II (Beta)	0.0997	0.133		ug/L		133	50 - 150
Endosulfan sulfate	0.0997	0.0946	J	ug/L		95	50 - 150
Endrin	0.0997	0.167	^3+	ug/L		168	50 - 150
Endrin aldehyde	0.0997	0.134		ug/L		135	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MRL 380-16671/2-A
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
EPTC	0.0997	0.102		ug/L		102	50 - 150
Fluoranthene	0.0498	0.0527	J	ug/L		106	50 - 150
Fluorene	0.0498	0.0591		ug/L		119	50 - 150
gamma-Chlordane	0.0498	0.0667		ug/L		134	50 - 150
Heptachlor	0.0399	0.0544		ug/L		136	50 - 150
Heptachlor epoxide (isomer B)	0.0498	0.0620		ug/L		125	50 - 150
Hexachlorobenzene	0.0498	0.0429	J	ug/L		86	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0530		ug/L		106	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	0.0501		ug/L		100	50 - 150
Isophorone	0.0997	0.0990	J	ug/L		99	50 - 150
gamma-BHC (Lindane)	0.0498	0.0562		ug/L		113	50 - 150
Malathion	0.0997	0.107		ug/L		108	50 - 150
Methoxychlor	0.0997	0.148		ug/L		148	50 - 150
Metolachlor	0.0498	0.0668		ug/L		134	50 - 150
Metribuzin	0.0498	0.0694		ug/L		139	50 - 150
Molinate	0.0997	0.106		ug/L		106	50 - 150
Naphthalene	0.0997	0.107	J	ug/L		107	50 - 150
Parathion	0.0997	0.119		ug/L		120	50 - 150
Pendimethalin (Penoxaline)	0.0997	0.132		ug/L		133	50 - 150
Phenanthrene	0.0199	0.0293	J	ug/L		147	50 - 150
Propachlor	0.0498	0.0601		ug/L		121	50 - 150
Pyrene	0.0498	0.0535		ug/L		107	50 - 150
Simazine	0.0498	0.0429	J	ug/L		86	50 - 150
Terbacil	0.0997	0.0967	J	ug/L		97	50 - 150
Terbutylazine	0.0997	0.110		ug/L		110	50 - 150
Thiobencarb	0.0997	0.123	J	ug/L		123	50 - 150
trans-Nonachlor	0.0498	0.0538		ug/L		108	50 - 150
Trifluralin	0.0997	0.118		ug/L		119	50 - 150
1-Methylnaphthalene	0.0997	0.116		ug/L		117	50 - 150
2-Methylnaphthalene	0.0997	0.110		ug/L		110	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Triphenylphosphate	97		70 - 130
Perylene-d12	91		70 - 130

Lab Sample ID: 380-19571-Z-1-A MS
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		2.00	2.11		ug/L		106	70 - 130
2,4'-DDE	ND		2.00	2.06		ug/L		103	70 - 130
2,4'-DDT	ND		2.00	2.37		ug/L		118	70 - 130
2,4-Dinitrotoluene	ND		2.00	1.78		ug/L		89	70 - 130
2,6-Dinitrotoluene	ND		2.00	1.73		ug/L		86	70 - 130
4,4'-DDD	ND		2.00	2.31		ug/L		116	70 - 130
4,4'-DDE	ND		2.00	2.18		ug/L		109	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19571-Z-1-A MS
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
4,4'-DDT	ND		2.00	2.21		ug/L		111	70 - 130
Acenaphthene	ND		2.00	1.78		ug/L		89	70 - 130
Acenaphthylene	ND		2.00	1.95		ug/L		97	70 - 130
Acetochlor	ND		2.00	1.90		ug/L		95	70 - 130
Alachlor	ND		2.00	2.04		ug/L		102	70 - 130
alpha-BHC	ND		2.00	2.04		ug/L		102	70 - 130
alpha-Chlordane	ND		2.00	1.73		ug/L		87	70 - 130
Anthracene	ND		2.00	1.58		ug/L		79	70 - 130
Atrazine	ND		2.00	2.09		ug/L		104	70 - 130
Benz(a)anthracene	ND		2.00	2.25		ug/L		112	70 - 130
Benzo[a]pyrene	ND	^3+	2.00	2.00		ug/L		100	70 - 130
Benzo[b]fluoranthene	ND	^3+	2.00	2.13		ug/L		107	70 - 130
Benzo[g,h,i]perylene	ND		2.00	2.10		ug/L		105	70 - 130
Benzo[k]fluoranthene	ND	^3+	2.00	2.30		ug/L		115	70 - 130
beta-BHC	ND		2.00	2.03		ug/L		102	70 - 130
Bromacil	ND		2.00	1.96		ug/L		98	70 - 130
Butachlor	ND		2.00	2.16		ug/L		108	70 - 130
Butylbenzylphthalate	ND		2.00	2.22		ug/L		111	70 - 130
Caffeine	ND	^3- *	2.00	0.986		ug/L		49	46 - 144
Chlorobenzilate	ND		2.00	2.33		ug/L		117	70 - 130
Chloroneb	ND		2.00	2.20		ug/L		110	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		2.00	2.21		ug/L		110	70 - 130
Chlorpyrifos	ND		2.00	2.32		ug/L		116	70 - 130
Chrysene	ND		2.00	2.33		ug/L		117	70 - 130
delta-BHC	ND		2.00	2.02		ug/L		101	70 - 130
Di(2-ethylhexyl)adipate	ND		2.00	2.10		ug/L		101	70 - 130
Bis(2-ethylhexyl) phthalate	ND		2.00	1.92		ug/L		96	70 - 130
Diazinon (Qualitative)	ND		2.00	1.87		ug/L		94	15 - 132
Dibenz(a,h)anthracene	ND		2.00	2.13		ug/L		107	70 - 130
Diclorvos (DDVP)	ND		2.00	2.05		ug/L		102	70 - 130
Dieldrin	ND		2.00	2.25		ug/L		112	70 - 130
Diethylphthalate	ND		2.00	1.95		ug/L		97	70 - 130
Dimethoate	ND	*	2.00	0.782		ug/L		39	34 - 111
Dimethylphthalate	ND		2.00	1.91		ug/L		95	70 - 130
Di-n-butyl phthalate	ND		4.00	4.47		ug/L		112	70 - 130
Di-n-octyl phthalate	ND		2.00	1.70		ug/L		85	70 - 130
Endosulfan I (Alpha)	ND		2.00	2.21		ug/L		111	70 - 130
Endosulfan II (Beta)	ND		2.00	2.40		ug/L		120	70 - 130
Endosulfan sulfate	ND		2.00	2.34		ug/L		117	70 - 130
Endrin	ND	^3+	2.00	2.14		ug/L		107	70 - 130
Endrin aldehyde	ND		2.00	1.43		ug/L		72	70 - 130
EPTC	ND		2.00	2.03		ug/L		102	70 - 130
Fluoranthene	ND		2.00	2.34		ug/L		117	70 - 130
Fluorene	ND		2.00	1.98		ug/L		99	70 - 130
gamma-Chlordane	ND		2.00	1.77		ug/L		89	70 - 130
Heptachlor	ND		2.00	2.10		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	ND		2.00	1.90		ug/L		95	70 - 130
Hexachlorobenzene	ND		2.00	2.05		ug/L		103	70 - 130
Hexachlorocyclopentadiene	ND		2.00	2.50		ug/L		125	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19571-Z-1-A MS
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Indeno[1,2,3-cd]pyrene	ND		2.00	2.11		ug/L		106	70 - 130
Isophorone	ND		2.00	1.84		ug/L		92	70 - 130
gamma-BHC (Lindane)	ND		2.00	2.07		ug/L		104	70 - 130
Malathion	ND		2.00	2.27		ug/L		114	70 - 130
Methoxychlor	ND		2.00	2.42		ug/L		121	70 - 130
Metolachlor	ND		2.00	2.25		ug/L		113	70 - 130
Metribuzin	ND		2.00	1.81		ug/L		90	70 - 130
Molinate	ND		2.00	2.07		ug/L		104	70 - 130
Naphthalene	ND		2.00	1.95		ug/L		97	70 - 130
Parathion	ND		2.00	2.26		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	ND		2.00	2.28		ug/L		114	70 - 130
Phenanthrene	ND		2.00	2.01		ug/L		101	70 - 130
Propachlor	ND		2.00	2.17		ug/L		109	70 - 130
Pyrene	ND		2.00	2.37		ug/L		118	70 - 130
Simazine	ND		2.00	2.13		ug/L		107	70 - 130
Terbacil	ND		2.00	1.89		ug/L		94	70 - 130
Terbutylazine	ND		2.00	2.13		ug/L		107	70 - 130
Thiobencarb	ND		2.00	1.97		ug/L		99	70 - 130
trans-Nonachlor	ND		2.00	2.16		ug/L		108	70 - 130
Trifluralin	ND		2.00	2.11		ug/L		106	70 - 130
1-Methylnaphthalene	ND		2.00	1.98		ug/L		99	70 - 130
2-Methylnaphthalene	ND		2.00	1.99		ug/L		100	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	96		70 - 130

Lab Sample ID: 380-19571-Z-3-A DU
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample	Sample	DU	DU	Unit	D	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		ND		ug/L		NC	20
2,6-Dinitrotoluene	ND		ND		ug/L		NC	20
4,4'-DDD	ND		ND		ug/L		NC	20
4,4'-DDE	ND		ND		ug/L		NC	20
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

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19571-Z-3-A DU
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Atrazine	ND		ND		ug/L		NC	20
Benz(a)anthracene	ND		ND		ug/L		NC	20
Benzo[a]pyrene	ND	^3+	ND		ug/L		NC	20
Benzo[b]fluoranthene	ND	^3+	ND		ug/L		NC	20
Benzo[g,h,i]perylene	ND		ND		ug/L		NC	20
Benzo[k]fluoranthene	ND	^3+	ND		ug/L		NC	20
beta-BHC	ND		ND		ug/L		NC	20
Bromacil	ND		ND		ug/L		NC	20
Butachlor	ND		ND		ug/L		NC	20
Butylbenzylphthalate	ND		ND		ug/L		NC	20
Caffeine	ND	^3- *-	ND	*-	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		ND		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	ND		ND		ug/L		NC	20
Diazinon (Qualitative)	ND		ND		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	*-	ND	*-	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		ND		ug/L		NC	20
Endosulfan sulfate	ND		ND		ug/L		NC	20
Endrin	ND	^3+	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-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
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
gamma-BHC (Lindane)	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

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19571-Z-3-A DU
Matrix: Water
Analysis Batch: 17012

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 16671

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Naphthalene	ND		ND		ug/L		NC	20
Parathion	ND		ND		ug/L		NC	20
Pendimethalin (Penoxaline)	ND		ND		ug/L		NC	20
Total Permethrin (mixed isomers)	ND		ND		ug/L		NC	20
Phenanthrene	ND		ND		ug/L		NC	20
Propachlor	ND		ND		ug/L		NC	20
Pyrene	ND		ND		ug/L		NC	20
Simazine	ND		ND		ug/L		NC	20
Terbacil	ND		ND		ug/L		NC	20
Terbutylazine	ND		ND		ug/L		NC	20
Thiobencarb	ND		ND		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

Surrogate	DU %Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Triphenylphosphate	105		70 - 130
Perylene-d12	93		70 - 130

Lab Sample ID: MB 380-17148/1-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17148

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2,4'-DDD	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
2,4'-DDE	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
2,4'-DDT	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
2,4-Dinitrotoluene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
2,6-Dinitrotoluene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
4,4'-DDD	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
4,4'-DDE	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
4,4'-DDT	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Acenaphthene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Acenaphthylene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Acetochlor	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Alachlor	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
alpha-BHC	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
alpha-Chlordane	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Anthracene	ND		0.020	ug/L		09/13/22 11:13	09/14/22 15:54	1
Atrazine	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Benz(a)anthracene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Benzo[a]pyrene	ND		0.020	ug/L		09/13/22 11:13	09/14/22 15:54	1
Benzo[b]fluoranthene	ND		0.020	ug/L		09/13/22 11:13	09/14/22 15:54	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Benzo[k]fluoranthene	ND		0.020	ug/L		09/13/22 11:13	09/14/22 15:54	1
beta-BHC	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-17148/1-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17148

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromacil	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Butachlor	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Butylbenzylphthalate	ND		0.50	ug/L		09/13/22 11:13	09/14/22 15:54	1
Caffeine	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Chlorobenzilate	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Chloroneb	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Chlorpyrifos	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Chrysene	ND		0.020	ug/L		09/13/22 11:13	09/14/22 15:54	1
delta-BHC	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		09/13/22 11:13	09/14/22 15:54	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		09/13/22 11:13	09/14/22 15:54	1
Diazinon (Qualitative)	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Diclorvos (DDVP)	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Dieldrin	ND		0.20	ug/L		09/13/22 11:13	09/14/22 15:54	1
Diethylphthalate	ND		0.50	ug/L		09/13/22 11:13	09/14/22 15:54	1
Dimethoate	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Dimethylphthalate	ND		0.50	ug/L		09/13/22 11:13	09/14/22 15:54	1
Di-n-butyl phthalate	ND		1.0	ug/L		09/13/22 11:13	09/14/22 15:54	1
Di-n-octyl phthalate	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Endosulfan I (Alpha)	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Endosulfan II (Beta)	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Endosulfan sulfate	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Endrin	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Endrin aldehyde	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
EPTC	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Fluoranthene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Fluorene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
gamma-Chlordane	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Heptachlor	ND		0.040	ug/L		09/13/22 11:13	09/14/22 15:54	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Hexachlorobenzene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Isophorone	ND		0.50	ug/L		09/13/22 11:13	09/14/22 15:54	1
gamma-BHC (Lindane)	ND		0.040	ug/L		09/13/22 11:13	09/14/22 15:54	1
Malathion	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Methoxychlor	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Metolachlor	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Metribuzin	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Molinate	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Naphthalene	ND		0.30	ug/L		09/13/22 11:13	09/14/22 15:54	1
Parathion	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/13/22 11:13	09/14/22 15:54	1
Phenanthrene	ND		0.040	ug/L		09/13/22 11:13	09/14/22 15:54	1
Propachlor	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Pyrene	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MB 380-17148/1-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17148

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Simazine	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Terbacil	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Terbutylazine	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
Thiobencarb	ND		0.20	ug/L		09/13/22 11:13	09/14/22 15:54	1
trans-Nonachlor	ND		0.050	ug/L		09/13/22 11:13	09/14/22 15:54	1
Trifluralin	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
1-Methylnaphthalene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1
2-Methylnaphthalene	ND		0.10	ug/L		09/13/22 11:13	09/14/22 15:54	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				09/13/22 11:13	09/14/22 15:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	09/13/22 11:13	09/14/22 15:54	1
Triphenylphosphate	117		70 - 130	09/13/22 11:13	09/14/22 15:54	1
Perylene-d12	106		70 - 130	09/13/22 11:13	09/14/22 15:54	1

Lab Sample ID: LCS 380-17148/3-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	2.01	2.16		ug/L		107	70 - 130
2,4'-DDE	2.01	1.95		ug/L		97	70 - 130
2,4'-DDT	2.01	2.11		ug/L		105	70 - 130
2,4-Dinitrotoluene	2.01	1.91		ug/L		95	70 - 130
2,6-Dinitrotoluene	2.01	1.92		ug/L		96	70 - 130
4,4'-DDD	2.01	2.17		ug/L		108	70 - 130
4,4'-DDE	2.01	2.35		ug/L		117	70 - 130
4,4'-DDT	2.01	2.18		ug/L		108	70 - 130
Acenaphthene	2.01	1.94		ug/L		96	70 - 130
Acenaphthylene	2.01	2.00		ug/L		99	70 - 130
Acetochlor	2.01	2.44		ug/L		121	70 - 130
Alachlor	2.01	2.37		ug/L		118	70 - 130
alpha-BHC	2.01	2.20		ug/L		110	70 - 130
alpha-Chlordane	2.01	2.15		ug/L		107	70 - 130
Anthracene	2.01	2.01		ug/L		100	70 - 130
Atrazine	2.01	2.29		ug/L		114	70 - 130
Benz(a)anthracene	2.01	2.26		ug/L		112	70 - 130
Benzo[a]pyrene	2.01	2.23		ug/L		111	70 - 130
Benzo[b]fluoranthene	2.01	2.21		ug/L		110	70 - 130
Benzo[g,h,i]perylene	2.01	2.84	*+	ug/L		141	70 - 130
Benzo[k]fluoranthene	2.01	2.13		ug/L		106	70 - 130
beta-BHC	2.01	2.29		ug/L		114	70 - 130
Bromacil	2.01	2.45		ug/L		122	70 - 130
Butachlor	2.01	2.75	*+	ug/L		137	70 - 130
Butylbenzylphthalate	2.01	2.75	*+	ug/L		137	70 - 130
Caffeine	2.01	1.70		ug/L		85	45 - 137

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17148/3-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	2.01	2.79	*+	ug/L		139	70 - 130
Chloroneb	2.01	1.98		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	2.01	2.39		ug/L		119	70 - 130
Chlorpyrifos	2.01	2.15		ug/L		107	70 - 130
Chrysene	2.01	1.84		ug/L		91	70 - 130
delta-BHC	2.01	2.16		ug/L		108	70 - 130
Di(2-ethylhexyl)adipate	2.01	3.30	*+	ug/L		164	70 - 130
Bis(2-ethylhexyl) phthalate	2.01	2.51		ug/L		125	70 - 130
Diazinon (Qualitative)	2.01	1.89		ug/L		94	15 - 132
Dibenz(a,h)anthracene	2.01	2.85	*+	ug/L		142	70 - 130
Diclorvos (DDVP)	2.01	2.15		ug/L		107	70 - 130
Dieldrin	2.01	2.12		ug/L		105	70 - 130
Diethylphthalate	2.01	2.23		ug/L		111	70 - 130
Dimethoate	2.01	1.86		ug/L		92	35 - 100
Dimethylphthalate	2.01	2.26		ug/L		112	70 - 130
Di-n-butyl phthalate	4.02	4.41		ug/L		110	70 - 130
Di-n-octyl phthalate	2.01	2.07		ug/L		103	70 - 130
Endosulfan I (Alpha)	2.01	2.17		ug/L		108	70 - 130
Endosulfan II (Beta)	2.01	2.32		ug/L		115	70 - 130
Endosulfan sulfate	2.01	2.33		ug/L		116	70 - 130
Endrin	2.01	2.69	*+	ug/L		134	70 - 130
Endrin aldehyde	2.01	2.29		ug/L		114	70 - 130
EPTC	2.01	2.21		ug/L		110	70 - 130
Fluoranthene	2.01	2.26		ug/L		113	70 - 130
Fluorene	2.01	2.10		ug/L		105	70 - 130
gamma-Chlordane	2.01	2.15		ug/L		107	70 - 130
Heptachlor	2.01	2.20		ug/L		110	70 - 130
Heptachlor epoxide (isomer B)	2.01	2.40		ug/L		120	70 - 130
Hexachlorobenzene	2.01	2.08		ug/L		104	70 - 130
Hexachlorocyclopentadiene	2.01	1.83		ug/L		91	70 - 130
Indeno[1,2,3-cd]pyrene	2.01	2.85	*+	ug/L		142	70 - 130
Isophorone	2.01	2.14		ug/L		106	70 - 130
gamma-BHC (Lindane)	2.01	2.22		ug/L		111	70 - 130
Malathion	2.01	2.38		ug/L		118	70 - 130
Methoxychlor	2.01	2.40		ug/L		119	70 - 130
Metolachlor	2.01	2.35		ug/L		117	70 - 130
Metribuzin	2.01	2.25		ug/L		112	70 - 130
Molinate	2.01	2.34		ug/L		116	70 - 130
Naphthalene	2.01	2.08		ug/L		103	70 - 130
Parathion	2.01	2.42		ug/L		120	70 - 130
Pendimethalin (Penoxaline)	2.01	2.07		ug/L		103	70 - 130
Phenanthrene	2.01	1.99		ug/L		99	70 - 130
Propachlor	2.01	2.46		ug/L		122	70 - 130
Pyrene	2.01	2.23		ug/L		111	70 - 130
Simazine	2.01	2.30		ug/L		115	70 - 130
Terbacil	2.01	2.68	*+	ug/L		133	70 - 130
Terbutylazine	2.01	2.11		ug/L		105	70 - 130
Thiobencarb	2.01	2.40		ug/L		119	70 - 130
trans-Nonachlor	2.01	1.99		ug/L		99	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17148/3-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trifluralin	2.01	1.93		ug/L		96	70 - 130
1-Methylnaphthalene	2.01	2.03		ug/L		101	70 - 130
2-Methylnaphthalene	2.01	2.09		ug/L		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Triphenylphosphate	122		70 - 130
Perylene-d12	110		70 - 130

Lab Sample ID: LCSD 380-17148/4-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	2.02	2.16		ug/L		107	70 - 130	0	20
2,4'-DDE	2.02	2.09		ug/L		104	70 - 130	7	20
2,4'-DDT	2.02	2.13		ug/L		105	70 - 130	1	20
2,4-Dinitrotoluene	2.02	2.18		ug/L		108	70 - 130	13	20
2,6-Dinitrotoluene	2.02	2.12		ug/L		105	70 - 130	10	20
4,4'-DDD	2.02	2.14		ug/L		106	70 - 130	2	20
4,4'-DDE	2.02	2.37		ug/L		118	70 - 130	1	20
4,4'-DDT	2.02	2.15		ug/L		107	70 - 130	1	20
Acenaphthene	2.02	2.05		ug/L		102	70 - 130	6	20
Acenaphthylene	2.02	2.09		ug/L		104	70 - 130	5	20
Acetochlor	2.02	2.55		ug/L		126	70 - 130	4	20
Alachlor	2.02	2.41		ug/L		119	70 - 130	2	20
alpha-BHC	2.02	2.27		ug/L		113	70 - 130	3	20
alpha-Chlordane	2.02	2.17		ug/L		108	70 - 130	1	20
Anthracene	2.02	2.08		ug/L		103	70 - 130	3	20
Atrazine	2.02	2.48		ug/L		123	70 - 130	8	20
Benz(a)anthracene	2.02	2.19		ug/L		109	70 - 130	3	20
Benzo[a]pyrene	2.02	2.16		ug/L		107	70 - 130	3	20
Benzo[b]fluoranthene	2.02	2.13		ug/L		106	70 - 130	4	20
Benzo[g,h,i]perylene	2.02	2.76	*+	ug/L		137	70 - 130	3	20
Benzo[k]fluoranthene	2.02	2.11		ug/L		105	70 - 130	1	20
beta-BHC	2.02	2.34		ug/L		116	70 - 130	2	20
Bromacil	2.02	2.44		ug/L		121	70 - 130	1	20
Butachlor	2.02	2.79	*+	ug/L		138	70 - 130	1	20
Butylbenzylphthalate	2.02	2.63		ug/L		130	70 - 130	5	20
Caffeine	2.02	1.81		ug/L		90	45 - 137	6	20
Chlorobenzilate	2.02	2.77	*+	ug/L		138	70 - 130	1	20
Chloroneb	2.02	2.03		ug/L		101	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)	2.02	2.53		ug/L		126	70 - 130	6	20
Chlorpyrifos	2.02	2.30		ug/L		114	70 - 130	7	20
Chrysene	2.02	1.81		ug/L		90	70 - 130	2	20
delta-BHC	2.02	2.10		ug/L		104	70 - 130	3	20
Di(2-ethylhexyl)adipate	2.02	3.21	*+	ug/L		159	70 - 130	3	20
Bis(2-ethylhexyl) phthalate	2.02	2.44		ug/L		121	70 - 130	3	20

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCSD 380-17148/4-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diazinon (Qualitative)	2.02	2.03		ug/L		101	15 - 132	7	20
Dibenz(a,h)anthracene	2.02	2.72	*+	ug/L		135	70 - 130	5	20
Diclorvos (DDVP)	2.02	2.37		ug/L		118	70 - 130	10	20
Dieldrin	2.02	2.25		ug/L		112	70 - 130	6	20
Diethylphthalate	2.02	2.33		ug/L		115	70 - 130	4	20
Dimethoate	2.02	2.07	*+	ug/L		103	35 - 100	11	20
Dimethylphthalate	2.02	2.36		ug/L		117	70 - 130	4	20
Di-n-butyl phthalate	4.03	4.54		ug/L		113	70 - 130	3	20
Di-n-octyl phthalate	2.02	1.93		ug/L		96	70 - 130	7	20
Endosulfan I (Alpha)	2.02	2.15		ug/L		107	70 - 130	1	20
Endosulfan II (Beta)	2.02	2.34		ug/L		116	70 - 130	1	20
Endosulfan sulfate	2.02	2.38		ug/L		118	70 - 130	2	20
Endrin	2.02	2.62		ug/L		130	70 - 130	3	20
Endrin aldehyde	2.02	2.27		ug/L		113	70 - 130	1	20
EPTC	2.02	2.36		ug/L		117	70 - 130	7	20
Fluoranthene	2.02	2.27		ug/L		113	70 - 130	1	20
Fluorene	2.02	2.24		ug/L		111	70 - 130	6	20
gamma-Chlordane	2.02	2.16		ug/L		107	70 - 130	0	20
Heptachlor	2.02	2.28		ug/L		113	70 - 130	3	20
Heptachlor epoxide (isomer B)	2.02	2.39		ug/L		119	70 - 130	1	20
Hexachlorobenzene	2.02	2.20		ug/L		109	70 - 130	6	20
Hexachlorocyclopentadiene	2.02	1.95		ug/L		97	70 - 130	6	20
Indeno[1,2,3-cd]pyrene	2.02	2.73	*+	ug/L		136	70 - 130	4	20
Isophorone	2.02	2.22		ug/L		110	70 - 130	4	20
gamma-BHC (Lindane)	2.02	2.31		ug/L		115	70 - 130	4	20
Malathion	2.02	2.41		ug/L		119	70 - 130	1	20
Methoxychlor	2.02	2.37		ug/L		117	70 - 130	1	20
Metolachlor	2.02	2.39		ug/L		118	70 - 130	2	20
Metribuzin	2.02	2.34		ug/L		116	70 - 130	4	20
Molinate	2.02	2.49		ug/L		124	70 - 130	6	20
Naphthalene	2.02	2.15		ug/L		107	70 - 130	3	20
Parathion	2.02	2.59		ug/L		129	70 - 130	7	20
Pendimethalin (Penoxaline)	2.02	2.22		ug/L		110	70 - 130	7	20
Phenanthrene	2.02	2.05		ug/L		102	70 - 130	3	20
Propachlor	2.02	2.61		ug/L		130	70 - 130	6	20
Pyrene	2.02	2.28		ug/L		113	70 - 130	2	20
Simazine	2.02	2.52		ug/L		125	70 - 130	9	20
Terbacil	2.02	2.77	*+	ug/L		137	70 - 130	3	20
Terbutylazine	2.02	2.22		ug/L		110	70 - 130	5	20
Thiobencarb	2.02	2.45		ug/L		122	70 - 130	2	20
trans-Nonachlor	2.02	2.10		ug/L		104	70 - 130	5	20
Trifluralin	2.02	2.15		ug/L		107	70 - 130	11	20
1-Methylnaphthalene	2.02	2.16		ug/L		107	70 - 130	6	20
2-Methylnaphthalene	2.02	2.18		ug/L		108	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	99		70 - 130
Triphenylphosphate	113		70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCSD 380-17148/4-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17148

Surrogate	LCS D %Recovery	LCS D Qualifier	Limits
Perylene-d12	102		70 - 130

Lab Sample ID: MRL 380-17148/2-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.100	0.164	^3+	ug/L		163	50 - 150
2,4'-DDE	0.100	0.101		ug/L		100	50 - 150
2,4'-DDT	0.100	0.113		ug/L		112	50 - 150
2,4-Dinitrotoluene	0.100	0.127		ug/L		126	50 - 150
2,6-Dinitrotoluene	0.100	0.121		ug/L		120	50 - 150
4,4'-DDD	0.100	0.127		ug/L		127	50 - 150
4,4'-DDE	0.100	0.0995	J	ug/L		99	50 - 150
4,4'-DDT	0.100	0.116		ug/L		115	50 - 150
Acenaphthene	0.100	0.0993	J	ug/L		99	50 - 150
Acenaphthylene	0.100	0.0932	J	ug/L		93	50 - 150
Acetochlor	0.0502	0.0467	J	ug/L		93	50 - 150
Alachlor	0.0502	0.0657		ug/L		131	50 - 150
alpha-BHC	0.100	0.115		ug/L		114	50 - 150
alpha-Chlordane	0.0502	0.0566		ug/L		113	50 - 150
Anthracene	0.0201	0.0193	J	ug/L		96	50 - 150
Atrazine	0.0502	0.0678		ug/L		135	50 - 150
Benz(a)anthracene	0.0502	0.0588		ug/L		117	50 - 150
Benzo[a]pyrene	0.0201	0.0219		ug/L		109	50 - 150
Benzo[b]fluoranthene	0.0201	0.0234		ug/L		117	50 - 150
Benzo[g,h,i]perylene	0.0502	0.0491	J	ug/L		98	50 - 150
Benzo[k]fluoranthene	0.0201	0.0217		ug/L		108	50 - 150
beta-BHC	0.100	0.116		ug/L		116	50 - 150
Bromacil	0.100	0.175	^3+	ug/L		175	50 - 150
Butachlor	0.0502	0.0681		ug/L		136	50 - 150
Butylbenzylphthalate	0.151	0.285	J ^3+	ug/L		189	50 - 150
Caffeine	0.0502	0.0466	J	ug/L		93	50 - 150
Chlorobenzilate	0.100	0.137		ug/L		136	50 - 150
Chloroneb	0.100	0.108		ug/L		108	50 - 150
Chlorothalonil (Draconil, Bravo)	0.100	0.0905	J	ug/L		90	50 - 150
Chlorpyrifos	0.0502	0.0610		ug/L		121	50 - 150
Chrysene	0.0201	0.0223		ug/L		111	50 - 150
delta-BHC	0.100	0.141		ug/L		140	50 - 150
Di(2-ethylhexyl)adipate	0.301	0.674	^3+	ug/L		224	50 - 150
Bis(2-ethylhexyl) phthalate	0.602	0.824		ug/L		137	50 - 150
Diazinon (Qualitative)	0.100	0.0908	J	ug/L		90	15 - 132
Dibenz(a,h)anthracene	0.0502	0.0485	J	ug/L		97	50 - 150
Diclorvos (DDVP)	0.0502	0.0553		ug/L		110	50 - 150
Dieldrin	0.100	0.113	J	ug/L		113	50 - 150
Diethylphthalate	0.151	0.184	J	ug/L		122	50 - 150
Dimethoate	0.100	0.0655	J	ug/L		65	35 - 100
Dimethylphthalate	0.301	0.326	J	ug/L		108	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: MRL 380-17148/2-A
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	0.301	0.364	J	ug/L		121	49 - 243
Di-n-octyl phthalate	0.100	0.130		ug/L		129	50 - 150
Endosulfan I (Alpha)	0.100	0.122		ug/L		122	50 - 150
Endosulfan II (Beta)	0.100	0.157	^3+	ug/L		156	50 - 150
Endosulfan sulfate	0.100	0.102		ug/L		102	50 - 150
Endrin	0.100	0.147		ug/L		147	50 - 150
Endrin aldehyde	0.100	0.160	^3+	ug/L		160	50 - 150
EPTC	0.100	0.107		ug/L		106	50 - 150
Fluoranthene	0.0502	0.0617	J	ug/L		123	50 - 150
Fluorene	0.0502	0.0524		ug/L		104	50 - 150
gamma-Chlordane	0.0502	0.0614		ug/L		122	50 - 150
Heptachlor	0.0402	0.0473		ug/L		118	50 - 150
Heptachlor epoxide (isomer B)	0.0502	0.0603		ug/L		120	50 - 150
Hexachlorobenzene	0.0502	0.0528		ug/L		105	50 - 150
Hexachlorocyclopentadiene	0.0502	0.0465	J	ug/L		93	50 - 150
Indeno[1,2,3-cd]pyrene	0.0502	0.0592		ug/L		118	50 - 150
Isophorone	0.100	0.107	J	ug/L		106	50 - 150
gamma-BHC (Lindane)	0.0502	0.0526		ug/L		105	50 - 150
Malathion	0.100	0.102		ug/L		101	50 - 150
Methoxychlor	0.100	0.120		ug/L		120	50 - 150
Metolachlor	0.0502	0.0592		ug/L		118	50 - 150
Metribuzin	0.0502	0.0570		ug/L		113	50 - 150
Molinate	0.100	0.115		ug/L		114	50 - 150
Naphthalene	0.100	0.109	J	ug/L		109	50 - 150
Parathion	0.100	0.142		ug/L		141	50 - 150
Pendimethalin (Penoxaline)	0.100	0.116		ug/L		115	50 - 150
Phenanthrene	0.0201	0.0237	J	ug/L		118	50 - 150
Propachlor	0.0502	0.0529		ug/L		105	50 - 150
Pyrene	0.0502	0.0663		ug/L		132	50 - 150
Simazine	0.0502	0.0645		ug/L		128	50 - 150
Terbacil	0.100	0.102		ug/L		102	50 - 150
Terbutylazine	0.100	0.110		ug/L		110	50 - 150
Thiobencarb	0.100	0.131	J	ug/L		131	50 - 150
trans-Nonachlor	0.0502	0.0598		ug/L		119	50 - 150
Trifluralin	0.100	0.120		ug/L		119	50 - 150
1-Methylnaphthalene	0.100	0.115		ug/L		114	50 - 150
2-Methylnaphthalene	0.100	0.110		ug/L		109	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Triphenylphosphate	121		70 - 130
Perylene-d12	105		70 - 130

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19915-C-1-A MS
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4'-DDD	ND	^3+	1.99	2.06		ug/L		103	70 - 130
2,4'-DDE	ND		1.99	1.81		ug/L		91	70 - 130
2,4'-DDT	ND		1.99	1.88		ug/L		95	70 - 130
2,4-Dinitrotoluene	ND		1.99	1.91		ug/L		96	70 - 130
2,6-Dinitrotoluene	ND		1.99	1.93		ug/L		97	70 - 130
4,4'-DDD	ND		1.99	2.01		ug/L		101	70 - 130
4,4'-DDE	ND		1.99	2.05		ug/L		103	70 - 130
4,4'-DDT	ND		1.99	1.92		ug/L		96	70 - 130
Acenaphthene	ND		1.99	1.99		ug/L		100	70 - 130
Acenaphthylene	ND		1.99	2.05		ug/L		103	70 - 130
Acetochlor	ND	F1	1.99	2.45		ug/L		123	70 - 130
Alachlor	ND		1.99	2.30		ug/L		115	70 - 130
alpha-BHC	ND		1.99	2.12		ug/L		107	70 - 130
alpha-Chlordane	ND		1.99	2.05		ug/L		103	70 - 130
Anthracene	ND		1.99	1.65		ug/L		83	70 - 130
Atrazine	ND		1.99	2.25		ug/L		113	70 - 130
Benz(a)anthracene	ND		1.99	1.95		ug/L		98	70 - 130
Benzo[a]pyrene	ND		1.99	2.13		ug/L		107	70 - 130
Benzo[b]fluoranthene	ND		1.99	2.51		ug/L		126	70 - 130
Benzo[g,h,i]perylene	ND	*+ F1	1.99	2.94	F1	ug/L		147	70 - 130
Benzo[k]fluoranthene	ND		1.99	2.33		ug/L		117	70 - 130
beta-BHC	ND		1.99	2.13		ug/L		107	70 - 130
Bromacil	ND	F1 ^3+	1.99	2.33		ug/L		117	70 - 130
Butachlor	ND	*+ F1	1.99	2.70	F1	ug/L		135	70 - 130
Butylbenzylphthalate	ND	F1 ^3+ *+	1.99	2.65	F1	ug/L		133	70 - 130
Caffeine	ND		1.99	1.69		ug/L		85	46 - 144
Chlorobenzilate	ND	*+ F1	1.99	2.66	F1	ug/L		134	70 - 130
Chloroneb	ND		1.99	1.97		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.99	2.35		ug/L		118	70 - 130
Chlorpyrifos	ND		1.99	2.15		ug/L		108	70 - 130
Chrysene	ND		1.99	2.04		ug/L		102	70 - 130
delta-BHC	ND		1.99	2.04		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	ND	*+ F1 ^3+	1.99	2.62		ug/L		127	70 - 130
Bis(2-ethylhexyl) phthalate	ND	F1	1.99	2.69	F1	ug/L		135	70 - 130
Diazinon (Qualitative)	ND		1.99	1.99		ug/L		100	15 - 132
Dibenz(a,h)anthracene	ND	*+ F1	1.99	2.91	F1	ug/L		146	70 - 130
Diclorvos (DDVP)	ND		1.99	2.31		ug/L		116	70 - 130
Dieldrin	ND		1.99	2.08		ug/L		105	70 - 130
Diethylphthalate	ND		1.99	2.23		ug/L		112	70 - 130
Dimethoate	ND	*+	1.99	1.70		ug/L		85	34 - 111
Dimethylphthalate	ND		1.99	2.26		ug/L		113	70 - 130
Di-n-butyl phthalate	ND		3.98	4.27		ug/L		105	70 - 130
Di-n-octyl phthalate	ND		1.99	2.23		ug/L		112	70 - 130
Endosulfan I (Alpha)	ND		1.99	2.12		ug/L		106	70 - 130
Endosulfan II (Beta)	ND	^3+	1.99	2.23		ug/L		112	70 - 130
Endosulfan sulfate	ND	F1	1.99	2.26		ug/L		113	70 - 130
Endrin	ND	F1 *+	1.99	2.48		ug/L		125	70 - 130
Endrin aldehyde	ND	F1 ^3+	1.99	0.829	F1	ug/L		42	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19915-C-1-A MS
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
EPTC	ND		1.99	2.34		ug/L		117	70 - 130	
Fluoranthene	ND		1.99	2.17		ug/L		109	70 - 130	
Fluorene	ND		1.99	2.11		ug/L		106	70 - 130	
gamma-Chlordane	ND		1.99	1.99		ug/L		100	70 - 130	
Heptachlor	ND		1.99	2.20		ug/L		110	70 - 130	
Heptachlor epoxide (isomer B)	ND		1.99	2.22		ug/L		111	70 - 130	
Hexachlorobenzene	ND		1.99	2.07		ug/L		104	70 - 130	
Hexachlorocyclopentadiene	ND		1.99	1.97		ug/L		99	70 - 130	
Indeno[1,2,3-cd]pyrene	ND	*+ F1	1.99	3.00	F1	ug/L		151	70 - 130	
Isophorone	ND		1.99	2.23		ug/L		112	70 - 130	
gamma-BHC (Lindane)	ND		1.99	2.18		ug/L		109	70 - 130	
Malathion	ND		1.99	2.32		ug/L		116	70 - 130	
Methoxychlor	ND	F1	1.99	3.05	F1	ug/L		153	70 - 130	
Metolachlor	ND		1.99	2.30		ug/L		115	70 - 130	
Metribuzin	ND		1.99	2.17		ug/L		109	70 - 130	
Molinate	ND		1.99	2.39		ug/L		120	70 - 130	
Naphthalene	ND		1.99	2.21		ug/L		111	70 - 130	
Parathion	ND	F1	1.99	2.44		ug/L		122	70 - 130	
Pendimethalin (Penoxaline)	ND		1.99	2.08		ug/L		105	70 - 130	
Phenanthrene	ND		1.99	1.99		ug/L		100	70 - 130	
Propachlor	ND		1.99	2.43		ug/L		122	70 - 130	
Pyrene	ND		1.99	2.14		ug/L		108	70 - 130	
Simazine	ND		1.99	2.24		ug/L		112	70 - 130	
Terbacil	ND	*+ F1	1.99	2.67	F1	ug/L		134	70 - 130	
Terbutylazine	ND		1.99	2.02		ug/L		101	70 - 130	
Thiobencarb	ND		1.99	2.37		ug/L		119	70 - 130	
trans-Nonachlor	ND		1.99	1.85		ug/L		93	70 - 130	
Trifluralin	ND		1.99	1.98		ug/L		99	70 - 130	
1-Methylnaphthalene	ND		1.99	2.13		ug/L		107	70 - 130	
2-Methylnaphthalene	ND		1.99	2.20		ug/L		110	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	101		70 - 130
Triphenylphosphate	113		70 - 130
Perylene-d12	103		70 - 130

Lab Sample ID: 380-19915-C-1-B MSD
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
2,4'-DDD	ND	^3+	2.01	2.25		ug/L		112	70 - 130	9	20
2,4'-DDE	ND		2.01	2.00		ug/L		100	70 - 130	10	20
2,4'-DDT	ND		2.01	2.09		ug/L		104	70 - 130	10	20
2,4-Dinitrotoluene	ND		2.01	1.97		ug/L		98	70 - 130	3	20
2,6-Dinitrotoluene	ND		2.01	1.93		ug/L		96	70 - 130	0	20
4,4'-DDD	ND		2.01	2.29		ug/L		114	70 - 130	13	20
4,4'-DDE	ND		2.01	2.30		ug/L		114	70 - 130	11	20

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19915-C-1-B MSD

Matrix: Water

Analysis Batch: 17357

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17148

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
4,4'-DDT	ND		2.01	2.21		ug/L		110	70 - 130	14	20
Acenaphthene	ND		2.01	1.98		ug/L		99	70 - 130	1	20
Acenaphthylene	ND		2.01	2.06		ug/L		103	70 - 130	0	20
Acetochlor	ND	F1	2.01	2.67	F1	ug/L		133	70 - 130	9	20
Alachlor	ND		2.01	2.53		ug/L		126	70 - 130	10	20
alpha-BHC	ND		2.01	2.28		ug/L		114	70 - 130	7	20
alpha-Chlordane	ND		2.01	2.22		ug/L		111	70 - 130	8	20
Anthracene	ND		2.01	1.65		ug/L		82	70 - 130	0	20
Atrazine	ND		2.01	2.58		ug/L		129	70 - 130	14	20
Benz(a)anthracene	ND		2.01	2.26		ug/L		113	70 - 130	15	20
Benzo[a]pyrene	ND		2.01	2.12		ug/L		106	70 - 130	0	20
Benzo[b]fluoranthene	ND		2.01	2.56		ug/L		127	70 - 130	2	20
Benzo[g,h,i]perylene	ND	*+ F1	2.01	2.79	F1	ug/L		139	70 - 130	5	20
Benzo[k]fluoranthene	ND		2.01	2.34		ug/L		117	70 - 130	1	20
beta-BHC	ND		2.01	2.44		ug/L		121	70 - 130	14	20
Bromacil	ND	F1 ^3+	2.01	2.66	F1	ug/L		132	70 - 130	13	20
Butachlor	ND	*+ F1	2.01	2.97	F1	ug/L		148	70 - 130	10	20
Butylbenzylphthalate	ND	F1 ^3+ **	2.01	3.00	F1	ug/L		149	70 - 130	12	20
Caffeine	ND		2.01	1.71		ug/L		85	46 - 144	1	20
Chlorobenzilate	ND	*+ F1	2.01	3.06	F1	ug/L		152	70 - 130	14	20
Chloroneb	ND		2.01	2.02		ug/L		101	70 - 130	3	20
Chlorothalonil (Draconil, Bravo)	ND		2.01	2.54		ug/L		126	70 - 130	7	20
Chlorpyrifos	ND		2.01	2.35		ug/L		117	70 - 130	9	20
Chrysene	ND		2.01	2.07		ug/L		103	70 - 130	2	20
delta-BHC	ND		2.01	2.10		ug/L		105	70 - 130	3	20
Di(2-ethylhexyl)adipate	ND	*+ F1 ^3+	2.01	2.99	F1	ug/L		145	70 - 130	13	20
Bis(2-ethylhexyl) phthalate	ND	F1	2.01	2.69	F1	ug/L		134	70 - 130	0	20
Diazinon (Qualitative)	ND		2.01	2.21		ug/L		110	15 - 132	11	20
Dibenz(a,h)anthracene	ND	*+ F1	2.01	2.87	F1	ug/L		143	70 - 130	1	20
Diclorvos (DDVP)	ND		2.01	2.24		ug/L		112	70 - 130	3	20
Dieldrin	ND		2.01	2.35		ug/L		117	70 - 130	12	20
Diethylphthalate	ND		2.01	2.32		ug/L		116	70 - 130	4	20
Dimethoate	ND	*+	2.01	1.92		ug/L		96	34 - 111	12	20
Dimethylphthalate	ND		2.01	2.23		ug/L		111	70 - 130	1	20
Di-n-butyl phthalate	ND		4.02	4.77		ug/L		117	70 - 130	11	20
Di-n-octyl phthalate	ND		2.01	2.23		ug/L		111	70 - 130	0	20
Endosulfan I (Alpha)	ND		2.01	2.26		ug/L		112	70 - 130	6	20
Endosulfan II (Beta)	ND	^3+	2.01	2.53		ug/L		126	70 - 130	13	20
Endosulfan sulfate	ND	F1	2.01	2.67	F1	ug/L		133	70 - 130	17	20
Endrin	ND	F1 **	2.01	2.63	F1	ug/L		131	70 - 130	6	20
Endrin aldehyde	ND	F1 ^3+	2.01	0.775	F1	ug/L		39	70 - 130	7	20
EPTC	ND		2.01	2.26		ug/L		113	70 - 130	3	20
Fluoranthene	ND		2.01	2.38		ug/L		119	70 - 130	9	20
Fluorene	ND		2.01	2.17		ug/L		108	70 - 130	3	20
gamma-Chlordane	ND		2.01	2.15		ug/L		107	70 - 130	8	20
Heptachlor	ND		2.01	2.23		ug/L		111	70 - 130	1	20
Heptachlor epoxide (isomer B)	ND		2.01	2.45		ug/L		122	70 - 130	10	20
Hexachlorobenzene	ND		2.01	2.16		ug/L		108	70 - 130	5	20
Hexachlorocyclopentadiene	ND		2.01	1.84		ug/L		92	70 - 130	7	20

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19915-C-1-B MSD
Matrix: Water
Analysis Batch: 17357

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17148

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	ND	*+ F1	2.01	2.90	F1	ug/L		144	70 - 130	3	20
Isophorone	ND		2.01	2.20		ug/L		109	70 - 130	1	20
gamma-BHC (Lindane)	ND		2.01	2.37		ug/L		118	70 - 130	9	20
Malathion	ND		2.01	2.51		ug/L		125	70 - 130	8	20
Methoxychlor	ND	F1	2.01	3.11	F1	ug/L		155	70 - 130	2	20
Metolachlor	ND		2.01	2.50		ug/L		125	70 - 130	9	20
Metribuzin	ND		2.01	2.31		ug/L		115	70 - 130	6	20
Molinate	ND		2.01	2.40		ug/L		120	70 - 130	0	20
Naphthalene	ND		2.01	2.12		ug/L		106	70 - 130	4	20
Parathion	ND	F1	2.01	2.73	F1	ug/L		136	70 - 130	11	20
Pendimethalin (Penoxaline)	ND		2.01	2.28		ug/L		114	70 - 130	9	20
Phenanthrene	ND		2.01	2.03		ug/L		101	70 - 130	2	20
Propachlor	ND		2.01	2.58		ug/L		129	70 - 130	6	20
Pyrene	ND		2.01	2.38		ug/L		119	70 - 130	11	20
Simazine	ND		2.01	2.54		ug/L		127	70 - 130	13	20
Terbacil	ND	*+ F1	2.01	2.87	F1	ug/L		143	70 - 130	7	20
Terbutylazine	ND		2.01	2.34		ug/L		116	70 - 130	15	20
Thiobencarb	ND		2.01	2.55		ug/L		127	70 - 130	7	20
trans-Nonachlor	ND		2.01	2.04		ug/L		101	70 - 130	10	20
Trifluralin	ND		2.01	2.10		ug/L		104	70 - 130	6	20
1-Methylnaphthalene	ND		2.01	2.07		ug/L		103	70 - 130	3	20
2-Methylnaphthalene	ND		2.01	2.16		ug/L		108	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Triphenylphosphate	131	S1+	70 - 130
Perylene-d12	102		70 - 130

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

Lab Sample ID: MBL 380-17299/12-A
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17299

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.040	ug/L		09/14/22 12:00	09/14/22 21:56	1
1,2-Dibromo-3-Chloropropane	ND		0.010	ug/L		09/14/22 12:00	09/14/22 21:56	1
1,2-Dibromoethane	ND		0.010	ug/L		09/14/22 12:00	09/14/22 21:56	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	109		60 - 140	09/14/22 12:00	09/14/22 21:56	1

Lab Sample ID: LCS 380-17299/11-A
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.200	0.214		ug/L		107	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17299/11-A
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.200	0.196		ug/L		98	70 - 130
1,2-Dibromoethane	0.200	0.197		ug/L		98	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dibromopropane (Surr)	93		60 - 140				

Lab Sample ID: MRL 380-17299/10-A
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0500	0.0635		ug/L		127	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.0132		ug/L		132	60 - 140
1,2-Dibromoethane	0.0100	0.00894	J	ug/L		89	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	105		60 - 140				

Lab Sample ID: MRL 380-17299/9-A
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	0.0400	0.0553		ug/L		138	60 - 140
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
1,2-Dibromopropane (Surr)	95		60 - 140				

Lab Sample ID: 380-20084-F-10-A MS
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		1.26	1.23		ug/L		98	65 - 135
1,2-Dibromo-3-Chloropropane	ND		0.251	0.253		ug/L		101	65 - 135
1,2-Dibromoethane	ND		0.251	0.248		ug/L		99	65 - 135
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dibromopropane (Surr)	104		60 - 140						

Lab Sample ID: 380-20084-D-11-A DU
Matrix: Water
Analysis Batch: 17528

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 17299

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
1,2,3-Trichloropropane	ND		ND		ug/L		NC	20
1,2-Dibromo-3-Chloropropane	0.0099		0.0102		ug/L		3	20
1,2-Dibromoethane	ND		ND		ug/L		NC	20

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 380-17283/41
 Matrix: Water
 Analysis Batch: 17283

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			09/08/22 02:44	1
Nitrate Nitrite as N	ND		0.050	mg/L			09/08/22 02:44	1
Nitrite as N	ND		0.050	mg/L			09/08/22 02:44	1

Lab Sample ID: LCS 380-17283/7
 Matrix: Water
 Analysis Batch: 17283

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.50	2.46		mg/L		98	90 - 110
Nitrate Nitrite as N	3.50	3.39		mg/L		97	90 - 110
Nitrite as N	1.00	0.933		mg/L		93	90 - 110

Lab Sample ID: LCSD 380-17283/8
 Matrix: Water
 Analysis Batch: 17283

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	2.49		mg/L		100	90 - 110	1	20
Nitrate Nitrite as N	3.50	3.42		mg/L		98	90 - 110	1	20
Nitrite as N	1.00	0.928		mg/L		93	90 - 110	1	20

Lab Sample ID: MRL 380-17283/43
 Matrix: Water
 Analysis Batch: 17283

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	0.0457		mg/L		91	50 - 150
Nitrate Nitrite as N	0.100	0.0887		mg/L		89	50 - 150
Nitrite as N	0.0500	0.0430		mg/L		86	50 - 150

Lab Sample ID: MRL 380-17283/6
 Matrix: Water
 Analysis Batch: 17283

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	0.0445		mg/L		89	50 - 150
Nitrate Nitrite as N	0.100	0.0895		mg/L		90	50 - 150
Nitrite as N	0.0500	0.0450		mg/L		90	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 810-36971-T-1 MS
Matrix: Water
Analysis Batch: 17283

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	ND		1.25	1.24		mg/L		99	80 - 120
Nitrate Nitrite as N	ND		1.75	1.69		mg/L		96	80 - 120
Nitrite as N	ND		0.500	0.446		mg/L		89	80 - 120

Lab Sample ID: 810-36971-T-1 MSD
Matrix: Water
Analysis Batch: 17283

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	ND		1.25	1.24		mg/L		99	80 - 120	0	20
Nitrate Nitrite as N	ND		1.75	1.69		mg/L		96	80 - 120	0	20
Nitrite as N	ND		0.500	0.448		mg/L		90	80 - 120	0	20

Lab Sample ID: MB 380-17287/45
Matrix: Water
Analysis Batch: 17287

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			09/09/22 01:16	1
Sulfate	ND		0.25	mg/L			09/09/22 01:16	1

Lab Sample ID: LCS 380-17287/7
Matrix: Water
Analysis Batch: 17287

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.1		mg/L		100	90 - 110
Sulfate	50.0	49.7		mg/L		99	90 - 110

Lab Sample ID: LCSD 380-17287/8
Matrix: Water
Analysis Batch: 17287

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25.0	25.4		mg/L		101	90 - 110	1	20
Sulfate	50.0	50.1		mg/L		100	90 - 110	1	20

Lab Sample ID: MRL 380-17287/5
Matrix: Water
Analysis Batch: 17287

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.125	0.130		mg/L		104	50 - 150
Sulfate	0.250	0.205		mg/L		82	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 380-17287/6
Matrix: Water
Analysis Batch: 17287

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.429		mg/L		86	50 - 150
Sulfate	1.00	0.867		mg/L		87	50 - 150

Lab Sample ID: 380-20142-F-1 MS
Matrix: Water
Analysis Batch: 17287

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	51		25.0	75.0		mg/L		95	80 - 120
Sulfate	35		50.0	87.8		mg/L		106	80 - 120

Lab Sample ID: 380-20142-F-1 MSD
Matrix: Water
Analysis Batch: 17287

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	Limit
Chloride	51		25.0	74.8		mg/L		95	80 - 120	0	20
Sulfate	35		50.0	86.7		mg/L		103	80 - 120	1	20

Lab Sample ID: MB 380-17519/4
Matrix: Water
Analysis Batch: 17519

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			09/14/22 07:23	1

Lab Sample ID: LCS 380-17519/5
Matrix: Water
Analysis Batch: 17519

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	98.7		ug/L		99	90 - 110

Lab Sample ID: LCSD 380-17519/6
Matrix: Water
Analysis Batch: 17519

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
Bromide	100	100		ug/L		100	90 - 110	1	10

Lab Sample ID: MRL 380-17519/3
Matrix: Water
Analysis Batch: 17519

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	4.96	J	ug/L		99	75 - 125

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 380-18524-A-7 MS
Matrix: Water
Analysis Batch: 17519

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		50.0	56.5		ug/L		113	80 - 120

Lab Sample ID: 380-18524-A-7 MSD
Matrix: Water
Analysis Batch: 17519

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	ND		50.0	56.8		ug/L		114	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 380-17380/18
Matrix: Water
Analysis Batch: 17380

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			09/14/22 13:12	1
Magnesium	ND		0.10	mg/L			09/14/22 13:12	1
Potassium	ND		1.0	mg/L			09/14/22 13:12	1
Sodium	ND		1.0	mg/L			09/14/22 13:12	1

Lab Sample ID: LCS 380-17380/20
Matrix: Water
Analysis Batch: 17380

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50.0	51.6		mg/L		103	85 - 115
Magnesium	20.0	20.4		mg/L		102	85 - 115
Potassium	20.0	20.4		mg/L		102	85 - 115
Sodium	50.0	50.7		mg/L		101	85 - 115

Lab Sample ID: LCSD 380-17380/21
Matrix: Water
Analysis Batch: 17380

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	52.0		mg/L		104	85 - 115	1	20
Magnesium	20.0	20.6		mg/L		103	85 - 115	1	20
Potassium	20.0	20.6		mg/L		103	85 - 115	1	20
Sodium	50.0	51.2		mg/L		102	85 - 115	1	20

Lab Sample ID: LLCS 380-17380/19
Matrix: Water
Analysis Batch: 17380

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	0.102		mg/L		102	50 - 150
Potassium	1.00	0.691	J	mg/L		69	50 - 150
Sodium	1.00	0.918	J	mg/L		92	50 - 150

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: 380-18138-B-1 MS
Matrix: Water
Analysis Batch: 17380

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	ND		50.0	50.3		mg/L		101	70 - 130
Magnesium	ND		20.0	20.1		mg/L		101	70 - 130
Potassium	ND		20.0	20.2		mg/L		101	70 - 130
Sodium	ND		50.0	49.3		mg/L		99	70 - 130

Lab Sample ID: 380-18138-B-1 MSD
Matrix: Water
Analysis Batch: 17380

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	ND		50.0	50.5		mg/L		101	70 - 130	0	20
Magnesium	ND		20.0	20.2		mg/L		101	70 - 130	0	20
Potassium	ND		20.0	20.3		mg/L		102	70 - 130	0	20
Sodium	ND		50.0	49.4		mg/L		99	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 380-17472/1-A
Matrix: Water
Analysis Batch: 17678

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Arsenic	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Beryllium	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Cadmium	ND		0.50	ug/L		09/15/22 08:01	09/16/22 13:21	1
Chromium	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Copper	ND		2.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Lead	ND		0.50	ug/L		09/15/22 08:01	09/16/22 13:21	1
Nickel	ND		5.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Selenium	ND		5.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Silver	ND		0.50	ug/L		09/15/22 08:01	09/16/22 13:21	1
Thallium	ND		1.0	ug/L		09/15/22 08:01	09/16/22 13:21	1
Zinc	ND		20	ug/L		09/15/22 08:01	09/16/22 13:21	1

Lab Sample ID: LCS 380-17472/3-A
Matrix: Water
Analysis Batch: 17678

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	51.6		ug/L		103	85 - 115
Arsenic	50.0	52.2		ug/L		104	85 - 115
Beryllium	25.0	26.7		ug/L		107	85 - 115
Cadmium	25.0	25.6		ug/L		103	85 - 115
Chromium	50.0	51.5		ug/L		103	85 - 115
Copper	50.0	54.0		ug/L		108	85 - 115
Lead	50.0	52.7		ug/L		105	85 - 115
Nickel	50.0	52.7		ug/L		105	85 - 115
Selenium	50.0	53.5		ug/L		107	85 - 115

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: LCS 380-17472/3-A
Matrix: Water
Analysis Batch: 17678

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.0	25.1		ug/L		100	85 - 115
Thallium	50.0	52.9		ug/L		106	85 - 115
Zinc	50.0	53.5		ug/L		107	85 - 115

Lab Sample ID: LCSD 380-17472/4-A
Matrix: Water
Analysis Batch: 17678

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	50.8		ug/L		102	85 - 115	1	20
Arsenic	50.0	51.0		ug/L		102	85 - 115	2	20
Beryllium	25.0	25.0		ug/L		100	85 - 115	7	20
Cadmium	25.0	25.6		ug/L		102	85 - 115	0	20
Chromium	50.0	51.3		ug/L		103	85 - 115	0	20
Copper	50.0	52.9		ug/L		106	85 - 115	2	20
Lead	50.0	53.1		ug/L		106	85 - 115	1	20
Nickel	50.0	51.5		ug/L		103	85 - 115	2	20
Selenium	50.0	52.8		ug/L		106	85 - 115	1	20
Silver	25.0	25.5		ug/L		102	85 - 115	1	20
Thallium	50.0	52.5		ug/L		105	85 - 115	1	20
Zinc	50.0	52.5		ug/L		105	85 - 115	2	20

Lab Sample ID: LLCS 380-17472/2-A
Matrix: Water
Analysis Batch: 17678

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	1.13		ug/L		113	50 - 150
Arsenic	1.00	1.20		ug/L		120	50 - 150
Beryllium	1.00	1.18		ug/L		118	50 - 150
Cadmium	0.500	0.590		ug/L		118	50 - 150
Chromium	1.00	1.07		ug/L		107	50 - 150
Copper	2.00	2.45		ug/L		122	50 - 150
Lead	0.500	0.604		ug/L		121	50 - 150
Nickel	5.00	5.85		ug/L		117	50 - 150
Selenium	5.00	5.71		ug/L		114	50 - 150
Silver	0.500	0.470	J	ug/L		94	50 - 150
Thallium	1.00	1.18		ug/L		118	50 - 150
Zinc	20.0	24.9		ug/L		124	50 - 150

Lab Sample ID: 380-20077-1 MS
Matrix: Drinking Water
Analysis Batch: 17678

Client Sample ID: BWS2253-J1-AQ
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		50.0	52.7		ug/L		105	70 - 130
Arsenic	ND		50.0	51.5		ug/L		103	70 - 130
Beryllium	ND		25.0	26.0		ug/L		104	70 - 130
Cadmium	ND		25.0	25.4		ug/L		102	70 - 130

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-20077-1 MS
Matrix: Drinking Water
Analysis Batch: 17678

Client Sample ID: BWS2253-J1-AQ
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	4.3		50.0	55.1		ug/L		102	70 - 130
Copper	ND		50.0	50.7		ug/L		101	70 - 130
Lead	ND		50.0	51.0		ug/L		102	70 - 130
Nickel	28		50.0	78.2		ug/L		100	70 - 130
Selenium	ND		50.0	52.6		ug/L		105	70 - 130
Silver	ND	^2	25.0	24.2		ug/L		96	70 - 130
Thallium	ND		50.0	50.3		ug/L		101	70 - 130
Zinc	ND		50.0	53.0		ug/L		106	70 - 130

Lab Sample ID: 380-20077-1 MSD
Matrix: Drinking Water
Analysis Batch: 17678

Client Sample ID: BWS2253-J1-AQ
Prep Type: Total Recoverable
Prep Batch: 17472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		50.0	52.6		ug/L		105	70 - 130	0	20
Arsenic	ND		50.0	51.5		ug/L		103	70 - 130	0	20
Beryllium	ND		25.0	25.9		ug/L		103	70 - 130	0	20
Cadmium	ND		25.0	25.5		ug/L		102	70 - 130	0	20
Chromium	4.3		50.0	55.2		ug/L		102	70 - 130	0	20
Copper	ND		50.0	50.1		ug/L		100	70 - 130	1	20
Lead	ND		50.0	49.6		ug/L		99	70 - 130	3	20
Nickel	28		50.0	78.2		ug/L		100	70 - 130	0	20
Selenium	ND		50.0	52.5		ug/L		105	70 - 130	0	20
Silver	ND	^2	25.0	24.3		ug/L		97	70 - 130	0	20
Thallium	ND		50.0	49.8		ug/L		100	70 - 130	1	20
Zinc	ND		50.0	52.3		ug/L		105	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 570-264405/1-A
Matrix: Water
Analysis Batch: 264571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264405

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		09/15/22 10:18	09/15/22 16:40	1

Lab Sample ID: LCS 570-264405/2-A
Matrix: Water
Analysis Batch: 264571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00800	0.00803		mg/L		100	85 - 115

Lab Sample ID: LCSD 570-264405/3-A
Matrix: Water
Analysis Batch: 264571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 264405

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.00800	0.00801		mg/L		100	85 - 115	0	10

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 570-109662-A-1-C MS
Matrix: Water
Analysis Batch: 264571

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264405

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00800	0.00751		mg/L		94	85 - 115

Lab Sample ID: 570-109662-A-1-D MSD
Matrix: Water
Analysis Batch: 264571

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264405

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	ND		0.00800	0.00736		mg/L		92	85 - 115	2	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 380-17165/7
Matrix: Water
Analysis Batch: 17165

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		2.0	mg/L			09/12/22 17:41	1
Bicarbonate Alkalinity as CaCO3	ND		2.0	mg/L			09/12/22 17:41	1
Carbonate Alkalinity as CaCO3	ND		2.0	mg/L			09/12/22 17:41	1

Lab Sample ID: LCS 380-17165/5
Matrix: Water
Analysis Batch: 17165

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	97.7		mg/L		98	90 - 110

Lab Sample ID: LCSD 380-17165/22
Matrix: Water
Analysis Batch: 17165

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
Alkalinity	100	97.4		mg/L		97	90 - 110	0	20

Lab Sample ID: LLCS 380-17165/6
Matrix: Water
Analysis Batch: 17165

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	20.0	20.3		mg/L		101	90 - 110

Lab Sample ID: MRL 380-17165/8
Matrix: Water
Analysis Batch: 17165

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	2.00	1.68	J	mg/L		84	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 380-19745-C-1 MS
Matrix: Water
Analysis Batch: 17165

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	210		100	307		mg/L		98	80 - 120

Lab Sample ID: 380-19745-C-1 MSD
Matrix: Water
Analysis Batch: 17165

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	210		100	308		mg/L					

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-17166/35
Matrix: Water
Analysis Batch: 17166

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			09/12/22 22:22	1

Lab Sample ID: MB 380-17166/7
Matrix: Water
Analysis Batch: 17166

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			09/12/22 17:41	1

Lab Sample ID: LCS 380-17166/10
Matrix: Water
Analysis Batch: 17166

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

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

Lab Sample ID: LCSD 380-17166/22
Matrix: Water
Analysis Batch: 17166

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	995		umhos/cm		99	90 - 110	1	10

Lab Sample ID: MRL 380-17166/8
Matrix: Water
Analysis Batch: 17166

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	1.90	J	umhos/cm		95	50 - 150

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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

Lab Sample ID: 380-19745-C-1 DU
Matrix: Water
Analysis Batch: 17166

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1000	^2	1050		umhos/cm		4	20

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

Lab Sample ID: MB 380-17080/1
Matrix: Water
Analysis Batch: 17080

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			09/12/22 17:18	1

Lab Sample ID: HLCS 380-17080/5
Matrix: Water
Analysis Batch: 17080

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	686		mg/L		98	80 - 114

Lab Sample ID: LCS 380-17080/4
Matrix: Water
Analysis Batch: 17080

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	158		mg/L		90	80 - 114

Lab Sample ID: MRL 380-17080/2
Matrix: Water
Analysis Batch: 17080

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	8.00	J	mg/L		80	50 - 150

Lab Sample ID: MRL 380-17080/3
Matrix: Water
Analysis Batch: 17080

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

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

Lab Sample ID: 380-20100-H-3 DU
Matrix: Water
Analysis Batch: 17080

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	330		322		mg/L		2	10

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 380-17164/40
Matrix: Water
Analysis Batch: 17164

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			09/12/22 20:54	1

Lab Sample ID: MB 380-17164/6
Matrix: Water
Analysis Batch: 17164

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			09/12/22 18:22	1

Lab Sample ID: LCS 380-17164/42
Matrix: Water
Analysis Batch: 17164

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	0.912		mg/L		91	90 - 110

Lab Sample ID: LCSD 380-17164/43
Matrix: Water
Analysis Batch: 17164

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	0.915		mg/L		91	90 - 110	0	10

Lab Sample ID: MRL 380-17164/41
Matrix: Water
Analysis Batch: 17164

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0475	J	mg/L		95	50 - 150

Lab Sample ID: MRL 380-17164/7
Matrix: Water
Analysis Batch: 17164

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0500		mg/L		100	50 - 150

Lab Sample ID: 380-19571-M-3 MS
Matrix: Water
Analysis Batch: 17164

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	0.14		1.00	1.06		mg/L		92	80 - 120

Lab Sample ID: 380-19571-M-3 MSD
Matrix: Water
Analysis Batch: 17164

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	0.14		1.00	1.06		mg/L		92	80 - 120	0	20

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-17167/9
 Matrix: Water
 Analysis Batch: 17167

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			09/12/22 17:41	1

Lab Sample ID: LCS 380-17167/10
 Matrix: Water
 Analysis Batch: 17167

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 380-17167/23
 Matrix: Water
 Analysis Batch: 17167

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: 380-19745-C-1 DU
 Matrix: Water
 Analysis Batch: 17167

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		7.9		SU		0.8	2

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i

Lab Sample ID: 99895-B1
 Matrix: BlankMatrix
 Analysis Batch: O-38138

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: O-38138_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,4,5-Trichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,4,6-Trichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,4-Dichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,4-Dinitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,6-Dichlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,6-Di-tert-butyl-4-methylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2,6-Di-tert-butylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Chloronaphthalene	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Chlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Methyl-4,6-dinitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
2-Nitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
3+4-Methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
3-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1

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QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99895-B1
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenylphenyl ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
4-Chloro-3-methylphenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
4-Chloroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
4-Chlorophenylphenyl ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
4-Nitroaniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
4-Nitrophenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
6-tert-butyl-2,4-dimethylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Acenaphthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Acenaphthylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Aniline	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzidine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzoic Acid	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
Benzyl Alcohol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
Biphenyl	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Bis(2-Chloroethoxy) methane	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Bis(2-Chloroethyl) ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Bis(2-Chloroisopropyl) ether	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Chrysene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Dibenzo[a,i]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Dibenzofuran	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Dibenzothiophene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Fluoranthene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Fluorene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Hexachloroethane	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Naphthalene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Nitrobenzene	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
N-Nitrosodi-n-propylamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
N-Nitrosodiphenylamine	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Pentachlorophenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Perylene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Phenanthrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Phenol	ND		0.2	0.1	µg/L		09/13/22 00:00	10/06/22 13:35	1
p-tert-Butylphenol	ND		0.1	0.05	µg/L		09/13/22 00:00	10/06/22 13:35	1
Pyrene	ND		0.005	0.001	µg/L		09/13/22 00:00	10/06/22 13:35	1
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
(2,4,6-Tribromophenol)	130		44 - 159				09/13/22 00:00	10/06/22 13:35	1
(d10-Acenaphthene)	93		65 - 113				09/13/22 00:00	10/06/22 13:35	1

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99895-B1
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38138_P

Surrogate	Blank		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
(d10-Phenanthrene)	92		80 - 111	09/13/22 00:00	10/06/22 13:35	1
(d12-Chrysene)	86		60 - 139	09/13/22 00:00	10/06/22 13:35	1
(d12-Perylene)	81		36 - 161	09/13/22 00:00	10/06/22 13:35	1
(d5-Phenol)	95		20 - 121	09/13/22 00:00	10/06/22 13:35	1
(d8-Naphthalene)	102		44 - 119	09/13/22 00:00	10/06/22 13:35	1

Lab Sample ID: 99895-BS1
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylphenanthrene	0.5	0.43		µg/L		86	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.593		µg/L		119	57 - 120
2,4,5-Trichlorophenol	1	0.702		µg/L		70	57 - 116
2,4,6-Trichlorophenol	1	0.725		µg/L		73	56 - 118
2,4-Dichlorophenol	1	0.761		µg/L		76	51 - 117
2,4-Dinitrophenol	1	0.369		µg/L		37	0 - 152
2,6-Dichlorophenol	1	0.711		µg/L		71	30 - 130
2,6-Dimethylnaphthalene	0.5	0.537		µg/L		107	54 - 117
2,6-Di-tert-butyl-4-methylphenol	1	0.753		µg/L		75	50 - 150
2,6-Di-tert-butylphenol	1	0.853		µg/L		85	50 - 150
2-Chloronaphthalene	1	0.795		µg/L		80	53 - 130
2-Chlorophenol	1	0.734		µg/L		73	41 - 120
2-Methyl-4,6-dinitrophenol	1	0.715		µg/L		71	0 - 141
2-Methylnaphthalene	1.5	1.61		µg/L		107	47 - 130
2-Methylphenol	1	0.832		µg/L		83	40 - 117
2-Nitroaniline	1	0.694		µg/L		69	69 - 114
2-Nitrophenol	1	0.574		µg/L		57	40 - 117
3+4-Methylphenol	1	0.799		µg/L		80	0 - 130
3-Nitroaniline	1	0.558		µg/L		56	23 - 137
4-Bromophenylphenyl ether	1	0.919		µg/L		92	61 - 132
4-Chloro-3-methylphenol	1	0.611		µg/L		61	51 - 128
4-Chloroaniline	1	0.884		µg/L		88	50 - 150
4-Chlorophenylphenyl ether	1	0.889		µg/L		89	63 - 130
4-Nitroaniline	1	0.995		µg/L		100	10 - 159
4-Nitrophenol	1	0.49		µg/L		49	10 - 164
6-tert-butyl-2,4-dimethylphenol	1	0.808		µg/L		81	50 - 150
Acenaphthene	3	2.2		µg/L		73	53 - 131
Acenaphthylene	3	2.24		µg/L		75	43 - 140
Aniline	1	0.749		µg/L		75	50 - 150
Anthracene	1.5	1.58		µg/L		105	58 - 135
Benz[a]anthracene	1.5	1.45		µg/L		97	55 - 145
Benzidine	5	5.27		µg/L		105	0 - 125
Benzo[a]pyrene	1.5	1.96		µg/L		131	51 - 143
Benzo[b]fluoranthene	1.5	1.59		µg/L		106	46 - 165
Benzo[e]pyrene	0.5	0.495		µg/L		99	42 - 152
Benzo[g,h,i]perylene	1.5	1.81		µg/L		121	63 - 133

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99895-BS1
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	1.5	1.51		µg/L		101	56 - 145
Benzoic Acid	1	0.121		µg/L		12	2 - 145
Benzyl Alcohol	1	0.791		µg/L		79	43 - 148
Biphenyl	0.5	0.527		µg/L		105	56 - 119
Bis(2-Chloroethoxy) methane	1	0.856		µg/L		86	66 - 122
Bis(2-Chloroethyl) ether	1	0.765		µg/L		76	43 - 127
Bis(2-Chloroisopropyl) ether	1	1.09		µg/L		109	49 - 128
Chrysene	1.5	1.71		µg/L		114	56 - 141
Dibenz[a,h]anthracene	1.5	1.56		µg/L		104	55 - 150
Dibenzo[a,l]pyrene	0.5	0.307		µg/L		61	50 - 150
Dibenzofuran	1	0.82		µg/L		82	50 - 150
Dibenzothiophene	0.5	0.442		µg/L		88	75 - 113
Disalicylidenepropanediamine	50	37.6		µg/L		75	50 - 150
Fluoranthene	1.5	1.55		µg/L		103	60 - 146
Fluorene	1.5	1.46		µg/L		97	58 - 131
Hexachloroethane	1	0.781		µg/L		78	27 - 130
Indeno[1,2,3-cd]pyrene	1.5	1.6		µg/L		107	50 - 151
Naphthalene	1.5	1.38		µg/L		92	41 - 126
Nitrobenzene	1	0.815		µg/L		81	54 - 111
N-Nitrosodi-n-propylamine	1	0.692		µg/L		69	61 - 152
N-Nitrosodiphenylamine	1	0.825		µg/L		82	49 - 142
Pentachlorophenol	1	0.738		µg/L		74	36 - 111
Perylene	0.5	0.436		µg/L		87	48 - 141
Phenanthrene	1.5	1.62		µg/L		108	67 - 127
Phenol	1	0.736		µg/L		74	29 - 114
p-tert-Butylphenol	1	1.15		µg/L		115	50 - 150
Pyrene	1.5	1.6		µg/L		107	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
(2,4,6-Tribromophenol)	148		44 - 159
(d10-Acenaphthene)	93		65 - 113
(d10-Phenanthrene)	93		80 - 111
(d12-Chrysene)	95		60 - 139
(d12-Perylene)	88		36 - 161
(d5-Phenol)	116		20 - 121
(d8-Naphthalene)	102		44 - 119

Lab Sample ID: 99895-BS2
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.388		µg/L		78	49 - 117	3	30
1-Methylphenanthrene	0.5	0.441		µg/L		88	66 - 127	2	30
2,3,5-Trimethylnaphthalene	0.5	0.579		µg/L		116	57 - 120	3	30
2,4,5-Trichlorophenol	1	0.661		µg/L		66	57 - 116	6	30
2,4,6-Trichlorophenol	1	0.678		µg/L		68	56 - 118	6	30
2,4-Dichlorophenol	1	0.701		µg/L		70	51 - 117	8	30

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99895-BS2
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
2,4-Dinitrophenol	1	0.485		µg/L		49	0 - 152	26	30	
2,6-Dichlorophenol	1	0.67		µg/L		67	30 - 130	6	30	
2,6-Dimethylnaphthalene	0.5	0.586		µg/L		117	54 - 117	9	30	
2,6-Di-tert-butyl-4-methylphenol	1	0.605		µg/L		61	50 - 150	22	30	
2,6-Di-tert-butylphenol	1	0.751		µg/L		75	50 - 150	12	30	
2-Chloronaphthalene	1	0.745		µg/L		75	53 - 130	8	30	
2-Chlorophenol	1	0.663		µg/L		66	41 - 120	10	30	
2-Methyl-4,6-dinitrophenol	1	0.83		µg/L		83	0 - 141	14	30	
2-Methylnaphthalene	1.5	1.51		µg/L		101	47 - 130	6	30	
2-Methylphenol	1	0.729		µg/L		73	40 - 117	13	30	
2-Nitroaniline	1	0.713		µg/L		71	69 - 114	3	30	
2-Nitrophenol	1	0.55		µg/L		55	40 - 117	4	30	
3+4-Methylphenol	1	0.693		µg/L		69	0 - 130	15	30	
3-Nitroaniline	1	0.611		µg/L		61	23 - 137	9	30	
4-Bromophenylphenyl ether	1	0.887		µg/L		89	61 - 132	3	30	
4-Chloro-3-methylphenol	1	0.596		µg/L		60	51 - 128	2	30	
4-Chloroaniline	1	0.724		µg/L		72	50 - 150	20	30	
4-Chlorophenylphenyl ether	1	0.835		µg/L		83	63 - 130	6	30	
4-Nitroaniline	1	1.01		µg/L		101	10 - 159	1	30	
4-Nitrophenol	1	0.554		µg/L		55	10 - 164	12	30	
6-tert-butyl-2,4-dimethylphenol	1	0.644		µg/L		64	50 - 150	23	30	
Acenaphthene	3	2.12		µg/L		71	53 - 131	3	30	
Acenaphthylene	3	2.17		µg/L		72	43 - 140	4	30	
Aniline	1	0.696		µg/L		70	50 - 150	7	30	
Anthracene	1.5	1.59		µg/L		106	58 - 135	1	30	
Benz[a]anthracene	1.5	1.56		µg/L		104	55 - 145	7	30	
Benzidine	5	4.53		µg/L		91	0 - 125	14	30	
Benzo[a]pyrene	1.5	1.9		µg/L		127	51 - 143	3	30	
Benzo[b]fluoranthene	1.5	1.59		µg/L		106	46 - 165	0	30	
Benzo[e]pyrene	0.5	0.466		µg/L		93	42 - 152	6	30	
Benzo[g,h,i]perylene	1.5	1.79		µg/L		119	63 - 133	2	30	
Benzo[k]fluoranthene	1.5	1.48		µg/L		99	56 - 145	2	30	
Benzoic Acid	1	0.137		µg/L		14	2 - 145	15	30	
Benzyl Alcohol	1	0.697		µg/L		70	43 - 148	12	30	
Biphenyl	0.5	0.582		µg/L		116	56 - 119	10	30	
Bis(2-Chloroethoxy) methane	1	0.776		µg/L		78	66 - 122	10	30	
Bis(2-Chloroethyl) ether	1	0.657		µg/L		66	43 - 127	14	30	
Bis(2-Chloroisopropyl) ether	1	1.06		µg/L		106	49 - 128	3	30	
Chrysene	1.5	1.8		µg/L		120	56 - 141	5	30	
Dibenz[a,h]anthracene	1.5	1.57		µg/L		105	55 - 150	1	30	
Dibenzo[a,l]pyrene	0.5	0.302		µg/L		60	50 - 150	2	30	
Dibenzofuran	1	0.771		µg/L		77	50 - 150	6	30	
Dibenzothiophene	0.5	0.434		µg/L		87	75 - 113	1	30	
Disalicylidenepranediamine	50	38.5		µg/L		77	50 - 150	3	30	
Fluoranthene	1.5	1.55		µg/L		103	60 - 146	0	30	
Fluorene	1.5	1.33		µg/L		89	58 - 131	9	30	
Hexachloroethane	1	0.653		µg/L		65	27 - 130	18	30	
Indeno[1,2,3-cd]pyrene	1.5	1.64		µg/L		109	50 - 151	2	30	
Naphthalene	1.5	1.86		µg/L		124	41 - 126	30	30	

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 625 Acid LL (EAL) Physis - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99895-BS2
Matrix: BlankMatrix
Analysis Batch: O-38138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38138_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrobenzene	1	0.688		µg/L		69	54 - 111	17	30
N-Nitrosodi-n-propylamine	1	0.778		µg/L		78	61 - 152	12	30
N-Nitrosodiphenylamine	1	0.828		µg/L		83	49 - 142	1	30
Pentachlorophenol	1	0.799		µg/L		80	36 - 111	8	30
Perylene	0.5	0.418		µg/L		84	48 - 141	4	30
Phenanthrene	1.5	1.58		µg/L		105	67 - 127	3	30
Phenol	1	0.648		µg/L		65	29 - 114	13	30
p-tert-Butylphenol	1	1.1		µg/L		110	50 - 150	4	30
Pyrene	1.5	1.57		µg/L		105	54 - 156	2	30

Surrogate	LCS DUP %Recovery	LCS DUP Qualifier	Limits
(2,4,6-Tribromophenol)	146		44 - 159
(d10-Acenaphthene)	89		65 - 113
(d10-Phenanthrene)	93		80 - 111
(d12-Chrysene)	101		60 - 139
(d12-Perylene)	84		36 - 161
(d5-Phenol)	100		20 - 121
(d8-Naphthalene)	94		44 - 119

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Lab Sample ID: 22DSI016WB
Matrix: WATER
Analysis Batch: 22DSI016W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			09/15/22 19:40	1
JP5	ND	U	0.05		mg/L			09/15/22 19:40	1
JP8	ND	U	0.05		mg/L			09/15/22 19:40	1
MOTOR OIL	ND	U	0.05		mg/L			09/15/22 19:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE					09/15/22 19:40	1
HEXACOSANE					09/15/22 19:40	1

Lab Sample ID: 22DSI016WL
Matrix: WATER
Analysis Batch: 22DSI016W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DIESEL	2.5	2.31		mg/L		92	50 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOBENZENE	85		60 - 130
HEXACOSANE	101		60 - 130

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 22J5I016WL
Matrix: WATER
Analysis Batch: 22DSI016W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
JP5	2.5	1.05		mg/L		42	30 - 160
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
BROMOBENZENE	81		60 - 130				
HEXACOSANE	91		60 - 130				

Lab Sample ID: 22J8I016WL
Matrix: WATER
Analysis Batch: 22DSI016W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
JP8	2.5	2.06		mg/L		82	30 - 160
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
BROMOBENZENE	93		60 - 130				
HEXACOSANE	93		60 - 130				

Lab Sample ID: 22I073-01M
Matrix: WATER
Analysis Batch: 22DSI016W

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
DIESEL	ND		2.62	2.71		mg/L		103	50 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
BROMOBENZENE	83		60 - 130						
HEXACOSANE	109		60 - 130						

Lab Sample ID: 22I073-01M
Matrix: WATER
Analysis Batch: 22DSI016W

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
JP5	ND		2.78	2.59		mg/L		93	30 - 160
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
BROMOBENZENE	86		60 - 130						
HEXACOSANE	107		60 - 130						

Lab Sample ID: 22I073-01S
Matrix: WATER
Analysis Batch: 22DSI016W

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
DIESEL	ND		2.6	2.74		mg/L		105	50 - 130	1	30

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 22I073-01S
 Matrix: WATER
 Analysis Batch: 22DSI016W

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
BROMOBENZENE	89		60 - 130
HEXACOSANE	107		60 - 130

Lab Sample ID: 22I073-01S
 Matrix: WATER
 Analysis Batch: 22DSI016W

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
JP5	ND		2.58	2.64		mg/L		103	30 - 160	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
BROMOBENZENE	99		60 - 130
HEXACOSANE	108		60 - 130

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22VG39I08B
 Matrix: WATER
 Analysis Batch: 22VG39I08

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			09/09/22 19:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE					09/09/22 19:00	1

Lab Sample ID: 22VG39I08L
 Matrix: WATER
 Analysis Batch: 22VG39I08

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	0.5	0.511		mg/L		102	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOFLUOROBENZENE	120		70 - 130

Lab Sample ID: 22I073-01M
 Matrix: WATER
 Analysis Batch: 22VG39I08

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	ND		0.5	0.509		mg/L		102	50 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
BROMOFLUOROBENZENE	118		60 - 140

QC Sample Results

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics (Continued)

Lab Sample ID: 22I073-01S
 Matrix: WATER
 Analysis Batch: 22VG39I08

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GASOLINE	ND		0.5	0.523		mg/L		105	50 - 130	3	30
<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD Qualifier</i>	<i>MSD Limits</i>								
BROMOFLUOROBENZENE	118		60 - 140								

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22MEI002WB
 Matrix: WATER
 Analysis Batch: 22MEI002W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/09/22 11:28	1

Lab Sample ID: 22MEI002WL
 Matrix: WATER
 Analysis Batch: 22MEI002W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	10000	8400		ug/L		84	60 - 130

Lab Sample ID: 22I073-01M
 Matrix: WATER
 Analysis Batch: 22MEI002W

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	ND		10000	9560		ug/L		96	60 - 130

Lab Sample ID: 22I073-01S
 Matrix: WATER
 Analysis Batch: 22MEI002W

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ETHANOL	ND		10000	9900		ug/L		99	60 - 130	3	30

Lab Sample ID: 22MEI003WB
 Matrix: WATER
 Analysis Batch: 22MEI003W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/14/22 12:59	1

Lab Sample ID: 22MEI003WL
 Matrix: WATER
 Analysis Batch: 22MEI003W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	10000	10600		ug/L		106	60 - 130

QC Association Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

GC/MS VOA

Analysis Batch: 17074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	524.2	
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	524.2	
MB 380-17074/11	Method Blank	Total/NA	Water	524.2	
LCS 380-17074/8	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-17074/9	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-17074/10	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 17517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	524.2	
MB 380-17517/8	Method Blank	Total/NA	Water	524.2	
LCS 380-17517/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-17517/5	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-17517/3	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-17517/7	Lab Control Sample	Total/NA	Water	524.2	

Analysis Batch: 18086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	524.2	

Analysis Batch: 32314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	524.3	
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	524.3	
MB 810-32314/4	Method Blank	Total/NA	Water	524.3	
810-37424-BF-3 MS	Matrix Spike	Total/NA	Water	524.3	
810-37424-AI-1 DU	Duplicate	Total/NA	Water	524.3	

GC/MS Semi VOA

Prep Batch: 16671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	525.2	
MB 380-16671/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-16671/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-16671/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-16671/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-19571-Z-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-19571-Z-3-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 17012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	525.2	16671
MB 380-16671/1-A	Method Blank	Total/NA	Water	525.2	16671
LCS 380-16671/3-A	Lab Control Sample	Total/NA	Water	525.2	16671
LCSD 380-16671/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	16671
MRL 380-16671/2-A	Lab Control Sample	Total/NA	Water	525.2	16671
380-19571-Z-1-A MS	Matrix Spike	Total/NA	Water	525.2	16671
380-19571-Z-3-A DU	Duplicate	Total/NA	Water	525.2	16671

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

GC/MS Semi VOA

Prep Batch: 17148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	525.2	
MB 380-17148/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-17148/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-17148/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-17148/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-19915-C-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-19915-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	

Analysis Batch: 17357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	525.2	17148
MB 380-17148/1-A	Method Blank	Total/NA	Water	525.2	17148
LCS 380-17148/3-A	Lab Control Sample	Total/NA	Water	525.2	17148
LCSD 380-17148/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	17148
MRL 380-17148/2-A	Lab Control Sample	Total/NA	Water	525.2	17148
380-19915-C-1-A MS	Matrix Spike	Total/NA	Water	525.2	17148
380-19915-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	17148

GC Semi VOA

Prep Batch: 17299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	504.1	
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	504.1	
MBL 380-17299/12-A	Method Blank	Total/NA	Water	504.1	
LCS 380-17299/11-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-17299/10-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-17299/9-A	Lab Control Sample	Total/NA	Water	504.1	
380-20084-F-10-A MS	Matrix Spike	Total/NA	Water	504.1	
380-20084-D-11-A DU	Duplicate	Total/NA	Water	504.1	

Analysis Batch: 17528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	504.1	17299
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	504.1	17299
MBL 380-17299/12-A	Method Blank	Total/NA	Water	504.1	17299
LCS 380-17299/11-A	Lab Control Sample	Total/NA	Water	504.1	17299
MRL 380-17299/10-A	Lab Control Sample	Total/NA	Water	504.1	17299
MRL 380-17299/9-A	Lab Control Sample	Total/NA	Water	504.1	17299
380-20084-F-10-A MS	Matrix Spike	Total/NA	Water	504.1	17299
380-20084-D-11-A DU	Duplicate	Total/NA	Water	504.1	17299

HPLC/IC

Analysis Batch: 17283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	300.0	
MB 380-17283/41	Method Blank	Total/NA	Water	300.0	
LCS 380-17283/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-17283/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-17283/43	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-17283/6	Lab Control Sample	Total/NA	Water	300.0	

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

HPLC/IC (Continued)

Analysis Batch: 17283 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-36971-T-1 MS	Matrix Spike	Total/NA	Water	300.0	
810-36971-T-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 17284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	300.0	

Analysis Batch: 17287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	300.0	
MB 380-17287/45	Method Blank	Total/NA	Water	300.0	
LCS 380-17287/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-17287/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-17287/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-17287/6	Lab Control Sample	Total/NA	Water	300.0	
380-20142-F-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-20142-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 17519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	300.0	
MB 380-17519/4	Method Blank	Total/NA	Water	300.0	
LCS 380-17519/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-17519/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-17519/3	Lab Control Sample	Total/NA	Water	300.0	
380-18524-A-7 MS	Matrix Spike	Total/NA	Water	300.0	
380-18524-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Analysis Batch: 17380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	200.7 Rev 4.4	
MB 380-17380/18	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-17380/20	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-17380/21	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-17380/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-18138-B-1 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-18138-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

Prep Batch: 17472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	
MB 380-17472/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 380-17472/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 380-17472/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 380-17472/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
380-20077-1 MS	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	
380-20077-1 MSD	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	

QC Association Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Metals

Analysis Batch: 17678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	17472
MB 380-17472/1-A	Method Blank	Total Recoverable	Water	200.8	17472
LCS 380-17472/3-A	Lab Control Sample	Total Recoverable	Water	200.8	17472
LCSD 380-17472/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	17472
LLCS 380-17472/2-A	Lab Control Sample	Total Recoverable	Water	200.8	17472
380-20077-1 MS	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	17472
380-20077-1 MSD	BWS2253-J1-AQ	Total Recoverable	Drinking Water	200.8	17472

Prep Batch: 264405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	245.1	
MB 570-264405/1-A	Method Blank	Total/NA	Water	245.1	
LCS 570-264405/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 570-264405/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
570-109662-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	
570-109662-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 264571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	245.1	264405
MB 570-264405/1-A	Method Blank	Total/NA	Water	245.1	264405
LCS 570-264405/2-A	Lab Control Sample	Total/NA	Water	245.1	264405
LCSD 570-264405/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	264405
570-109662-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	264405
570-109662-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	264405

General Chemistry

Analysis Batch: 17080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	SM 2540C	
MB 380-17080/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-17080/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-17080/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-17080/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-17080/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-20100-H-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 17164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	SM 4500 F C	
MB 380-17164/40	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-17164/6	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-17164/42	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-17164/43	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
MRL 380-17164/41	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-17164/7	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-19571-M-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-19571-M-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

General Chemistry

Analysis Batch: 17165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	SM 2320B	
MB 380-17165/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-17165/5	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-17165/22	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-17165/6	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-17165/8	Lab Control Sample	Total/NA	Water	SM 2320B	
380-19745-C-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-19745-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 17166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	SM 2510B	
MB 380-17166/35	Method Blank	Total/NA	Water	SM 2510B	
MB 380-17166/7	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-17166/10	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-17166/22	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-17166/8	Lab Control Sample	Total/NA	Water	SM 2510B	
380-19745-C-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 17167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-17167/9	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-17167/10	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-17167/23	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-19745-C-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Subcontract

Analysis Batch: O-38138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	625 Acid LL (EAL) Physis	O-38138_P
99895-B1	Method Blank	Total/NA	BlankMatrix	625 Acid LL (EAL) Physis	O-38138_P
99895-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 Acid LL (EAL) Physis	O-38138_P
99895-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 Acid LL (EAL) Physis	O-38138_P

Analysis Batch: 22DSI016W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	8015 Diesel LL (EAL) and Motor Oil	
22DSI016WB	Method Blank	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22DSI016WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22J5I016WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Subcontract (Continued)

Analysis Batch: 22DSI016W (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
22J8I016WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22I073-01M	Matrix Spike	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22I073-01M	Matrix Spike	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22I073-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22I073-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	

Analysis Batch: 22MEI002W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
22MEI002WB	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22MEI002WL	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22I073-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22I073-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Analysis Batch: 22MEI003W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
22MEI003WB	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22MEI003WL	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Analysis Batch: 22VG39I08

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	8015 Ethanol	
380-20077-2	BWS2253-J1-TB	Total/NA	Drinking Water	8015 Ethanol	
22VG39I08B	Method Blank	Total/NA	WATER	8015 Ethanol	
22VG39I08L	Lab Control Sample	Total/NA	WATER	8015 Ethanol	
22I073-01M	Matrix Spike	Total/NA	WATER	8015 Ethanol	
22I073-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Ethanol	

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Subcontract

Prep Batch: O-38138_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-20077-1	BWS2253-J1-AQ	Total/NA	Drinking Water	EPA_625	
99895-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
99895-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
99895-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Lab Chronicle

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-20077-1

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	17517	AAE8	EA MON	09/15/22 20:54
Total/NA	Analysis	524.2		1	18086	UKCP	EA MON	09/21/22 13:33
Total/NA	Analysis	524.2		1	17074	P3EE	EA MON	09/12/22 19:37
Total/NA	Analysis	524.3		1	32314	DC	EA SB	09/20/22 12:55
Total/NA	Prep	525.2			17148	OTM3	EA MON	09/13/22 11:13
Total/NA	Analysis	525.2		1	17357	UJC9	EA MON	09/14/22 17:25
Total/NA	Prep	525.2			16671	OTM3	EA MON	09/08/22 10:40
Total/NA	Analysis	525.2		1	17012	UPAC	EA MON	09/12/22 12:26
Total/NA	Prep	504.1			17299	K9GY	EA MON	09/14/22 12:00 - 09/14/22 13:26 ¹
Total/NA	Analysis	504.1		1	17528	K9GY	EA MON	09/15/22 03:06
Total/NA	Analysis	300.0		1	17519	UNJR	EA MON	09/14/22 13:06
Total/NA	Analysis	300.0		1	17283	RJS	EA MON	09/08/22 02:05
Total/NA	Analysis	300.0		1	17284	RJS	EA MON	09/08/22 02:05
Total/NA	Analysis	300.0		2	17287	RJS	EA MON	09/08/22 12:37
Total/NA	Analysis	200.7 Rev 4.4		1	17380	UNSI	EA MON	09/14/22 13:22
Total Recoverable	Prep	200.8			17472	NQM8	EA MON	09/15/22 08:01
Total Recoverable	Analysis	200.8		1	17678	DHX7	EA MON	09/16/22 13:37
Total/NA	Prep	245.1			264405	JP8N	EET CAL 4	09/15/22 10:18
Total/NA	Analysis	245.1		1	264571	C0YH	EET CAL 4	09/15/22 20:49
Total/NA	Analysis	SM 2320B		1	17165	D5MQ	EA MON	09/12/22 19:49
Total/NA	Analysis	SM 2510B		1	17166	D5MQ	EA MON	09/12/22 19:49
Total/NA	Analysis	SM 2540C		1	17080	XLG4	EA MON	09/12/22 17:18
Total/NA	Analysis	SM 4500 F C		1	17164	D5MQ	EA MON	09/12/22 23:01
Total/NA	Analysis	SM 4500 H+ B		1	17167	D5MQ	EA MON	09/12/22 19:49
Total/NA	Prep	EPA_625		1	O-38138_P			09/13/22 00:00
Total/NA	Analysis	625 Acid LL (EAL) Physis		1	O-38138	YC		10/06/22 18:46
Total/NA	Analysis	8015 Diesel LL (EAL) and Motor Oil		1	22DSI016W	SDees		09/15/22 20:54
Total/NA	Analysis	8015 Ethanol		1	22VG39I08	SCerva		09/09/22 20:54
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22MEI002W	ASitu		09/09/22 12:13

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-20077-2

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	17074	P3EE	EA MON	09/12/22 19:59
Total/NA	Analysis	524.3		1	32314	DC	EA SB	09/20/22 13:19
Total/NA	Prep	504.1			17299	K9GY	EA MON	09/14/22 12:00 - 09/14/22 13:26 ¹
Total/NA	Analysis	504.1		1	17528	K9GY	EA MON	09/15/22 03:40
Total/NA	Analysis	8015 Ethanol		1	22VG39I08	SCerva		09/09/22 22:49

Eurofins Eaton Monrovia

Lab Chronicle

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-20077-2

Date Collected: 09/06/22 10:00

Matrix: Drinking Water

Date Received: 09/07/22 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22MEI003W	ASitu		09/14/22 13:43

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

Laboratory References:

- = Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806
- EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100
- EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777
- EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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
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
525.2	525.2	Drinking Water	Di-n-butyl phthalate

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

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-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	10-11-22
Nevada	State	CA00111	08-01-23
Oregon	NELAP	4175	02-02-23
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-12-22

Laboratory: Eurofins Eaton South Bend

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

Authority	Program	Identification Number	Expiration Date
A2LA	ISO/IEC 17025	5794.01	07-31-24
Alabama	State	40700	06-30-23
Alaska	State	IN00035	06-30-23
Arizona	State	AZ0432	07-26-23

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Laboratory: Eurofins Eaton South Bend (Continued)

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

Authority	Program	Identification Number	Expiration Date
Arkansas (DW)	State	EPA IN00035	06-30-23
California	State	2920	06-30-23
Colorado	State	IN00035	02-28-23
Connecticut	State	PH-0132	03-31-22 *
Delaware (DW)	State	IN00035	06-30-23
Florida	NELAP	E87775	06-30-23
Georgia (DW)	State	929	06-30-23
Hawaii	State	IN035	06-30-23
Idaho (DW)	State	IN00035	12-31-22
IL Dept. of Public Health (Micro)	State	17767	12-31-22
Illinois	NELAP	200001	09-30-23
Indiana	State	C-71-01	12-31-22
Indiana (Micro)	State	M-76-07	12-31-22
Iowa	State	IA Lab #098	11-01-23
Kansas	NELAP	E-10233	10-31-22
Kentucky (DW)	State	KY90056	12-31-22
Louisiana (DW)	State	LA180008	12-31-22
Maine	State	IN00035	05-01-23
Maryland	State	209	03-31-23
Massachusetts	State	M-IN035	06-30-23
MI - RadChem Recognition	State	9926	06-30-23
Michigan	State	9926	12-31-22
Minnesota	NELAP	1989807	12-31-22
Mississippi	State	IN00035	06-30-22 *
Missouri	State	880	09-30-24
Montana (DW)	State	CERT0026	01-01-23
Nebraska	State	NE-OS-05-04	06-30-23
Nevada	State	IN000352021-2	07-31-23
New Hampshire	NELAP	2124	11-05-22
New Jersey	NELAP	IN598	06-30-23
New Mexico	State	IN00035	06-30-23
New York	NELAP	11398	04-01-23
North Carolina (DW)	State	18700	07-31-23
North Dakota	State	R-035	06-30-23
Ohio	State	87775	06-30-23
Oklahoma	NELAP	D9508	08-31-23
Oregon	NELAP	4156	09-16-23
Pennsylvania	NELAP	68-00466	04-30-23
Puerto Rico	State	IN00035	04-01-23
Rhode Island	State	LAO00343	12-30-22
South Carolina	State	95005001	06-30-22 *
South Dakota (DW)	State	IN00035	12-31-22
Tennessee	State	TN02973	06-30-23
Texas	NELAP	T104704187-20-4	12-31-22
Texas	TCEQ Water Supply	TX207	06-30-23
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25
Utah	NELAP	IN00035	07-31-23
Vermont	State	VT-8775	11-15-22
Virginia	NELAP	460275	03-14-23
Washington	State	C837	01-01-23

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Laboratory: Eurofins Eaton South Bend (Continued)

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

Authority	Program	Identification Number	Expiration Date
West Virginia (DW)	State	9927 C	12-31-22
Wisconsin	State	999766900	08-31-23
Wisconsin (Micro)	State	10121	12-31-22

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Method Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Method	Method Description	Protocol	Laboratory
524.2	Total Trihalomethanes	EPA-DW	EA MON
524.2	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA MON
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	EA MON
524.3	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA SB
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	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
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - Jet Fuel 5 (JP5)	EPA	
8015	8015 - Jet Fuel 8 (JP8)	EPA	
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	
200.8	Preparation, Total Recoverable Metals	EPA	EA MON
245.1	Preparation, Mercury	EPA	EET CAL 4
504.1	Microextraction	EPA-DW	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"

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

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

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

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

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

Sample Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-20077-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-20077-1	BWS2253-J1-AQ	Drinking Water	09/06/22 10:00	09/07/22 10:20
380-20077-2	BWS2253-J1-TB	Drinking Water	09/06/22 10:00	09/07/22 10:20

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3051 Fujita Street
Torrance, CA 90505
Tel: (310)-618-8889

Date: 09-27-2022
EMAX Batch No.: 221073

Attn: Jackie Contreras

Eurofins Eaton Analytical
750 Royal Oaks Dr., Suite 100
Monrovia, CA 91016-3629

Subject: Laboratory Report
Project: 380-20077

Enclosed is the Laboratory report for samples received on 09/08/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-20077-1	I073-01	09/06/22	WATER	TPH GASOLINE TPH ETHANOL
380-20077-2	I073-02	09/06/22	WATER	TPH GASOLINE ETHANOL
380-20077-1MS	I073-01M	09/06/22	WATER	TPH GASOLINE TPH DIESEL TPH JP-5
380-20077-1MSD	I073-01S	09/06/22	WATER	TPH GASOLINE TPH DIESEL TPH JP-5

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

Chain of Custody Record



Client Information (Sub Contract Lab)

Client Contact: EMAX Laboratories Inc
 Shipping/Receiving: EMAX Laboratories Inc

Address: 3051 Fujita Street,
 City: Torrance
 State, Zip: CA, 90505
 Phone: _____

Lab P.M.: Frank, Debbie L
 E-Mail: Debbie.Frank@eurofins.com
 Accreditations Required (See note): State - Hawaii

Carrier Tracking No(s):
 State of Origin: Hawaii

COC No.: 380-21095-1
 Page: 1 of 1

Due Date Requested: 9/21/2022
 TAT Requested (days):

Project #: 38000861
 SOW#: _____

Project Name: INTERA - Red-Hill-Incident
 Site: Honolulu BWS Sites

WO #: _____
 PO #: _____

Matrix: (W=water, S=solid, O=water/Oil, BT=Tissue, AA=)

Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)

Analysis Requested:
 SUB (8015 Ethanol)/ 8015 Ethanol
 SUB (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)
 SUB (8015 Diesel LL (EAL) and Motor Oil)/ 8015 Diesel LL (EAL) and Motor Oil
 SUB (8015 Jet Fuel 5 (JP5))/ 8015 Jet Fuel 5 (JP5)
 SUB (8015 Jet Fuel 8 (JP8))/ 8015 Jet Fuel 8 (JP8)

Total Number of Containers: _____

Special Instructions/Note:
 See Attached Instructions

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecalhydrate
 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	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note
BWS2253-J1-AQ (380-20077-1)	9/6/22	10:00	Hawaiian	Water	X	X	X	X	See Attached Instructions
BWS2253-J1-TB (380-20077-2)	9/6/22	10:00	Hawaiian	Water	X	X	X	X	See Attached Instructions

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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

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:
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Colder Temperature(s) °C and Other Remarks: _____

REPORT ID: 221073
 Page 2 of 47



Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>221073</u> Recipient <u>Derek Sholl</u> Date <u>09/08/22</u> Time <u>12:46</u>
---	---------------------------	---

COC INSPECTION

<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any) Note:	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition <u>Correction</u>	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging <u>factor - 0.2</u>	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>5.2/5.0</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer: A - S/N _____	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	<input checked="" type="checkbox"/> B - S/N <u>210760237</u>	<input type="checkbox"/> C - S/N _____	<input type="checkbox"/> D - S/N <u>210760272</u>

Comments: Temperature is out of range. PM was informed IMMEDIATELY.
 Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>2</u>	<u>19-22</u>	<u>D7</u>	<u>two dates on label - 8/30/22 & 9/6/22</u>	<u>R1</u>
<u>2</u>	<u>23-26</u>	<u>D7</u>	<u>two dates on label - 7/10/22 & 9/6/22</u>	<u>2</u>
<u>29/8/22</u>				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. MS 9/13/22

NOTES/OBSERVATIONS:
 SAMPLE MATRIX IS DRINKING WATER? YES NO

- LEGEND:**
- | | | |
|---|---|---|
| Code Description-Sample Management | Code Description-Sample Management | Code Description-Sample Management |
| D1 Analysis is not indicated in _____ | D13 Out of Holding Time | R1 Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label |
| D2 Analysis mismatch COC vs label | D14 Bubble is >6mm | R2 Refer to attached instruction |
| D3 Sample ID mismatch COC vs label | D15 No trip blank in cooler | R3 Cancel the analysis |
| D4 Sample ID is not indicated in _____ | D16 Preservation not indicated in _____ | R4 Use vial with smallest bubble first |
| D5 Container -[improper] [leaking] [broken] | D17 Preservation mismatch COC vs label | R5 Log-in with latest sampling date and time+1 min |
| D6 Date/Time is not indicated in _____ | D18 Insufficient chemical preservative | R6 Adjust pH as necessary |
| D7 Date/Time mismatch COC vs label | D19 Insufficient Sample | R7 Filter and preserved as necessary |
| D8 Sample listed in COC is not received | D20 No filtration info for dissolved analysis | R8 _____ |
| D9 Sample received is not listed in COC | D21 No sample for moisture determination | R9 _____ |
| D10 No initial/date on corrections in COC/label | D22 _____ | R10 _____ |
| D11 Container count mismatch COC vs received | D23 _____ | R11 _____ |
| D12 Container size mismatch COC vs received | D24 _____ | R12 _____ |
- Continue to next page.

REVIEWS:

Sample Labeling Jocelyn Reyes SRF Reyes
 Date 09/08/22 9/8/22 Date 9/8/22

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-20077

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 22I073



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-20077

SDG : 22I073

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of two(2) water samples were received on 09/08/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VG39I08B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VG39I08L/VG39I08C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in I073-01M/I073-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
Project : 380-20077
SDG NO. : 22I073
Instrument ID : GCT039

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VG39I08B	1	NA	09/09/2219:00	09/09/2219:00	E109015A	E109013A	22VG39I08	Method Blank
LCS1W	VG39I08L	1	NA	09/09/2219:38	09/09/2219:38	E109016A	E109013A	22VG39I08	Lab Control Sample (LCS)
LCD1W	VG39I08C	1	NA	09/09/2220:16	09/09/2220:16	E109017A	E109013A	22VG39I08	LCS Duplicate
380-20077-1	1073-01	1	NA	09/09/2220:54	09/09/2220:54	E109018A	E109013A	22VG39I08	Field Sample
380-20077-1MS	1073-01M	1	NA	09/09/2221:33	09/09/2221:33	E109019A	E109013A	22VG39I08	Matrix Spike Sample (MS)
380-20077-1MSD	1073-01S	1	NA	09/09/2222:11	09/09/2222:11	E109020A	E109013A	22VG39I08	MS Duplicate (MSD)
380-20077-2	1073-02	1	NA	09/09/2222:49	09/09/2222:49	E109021A	E109013A	22VG39I08	Field Sample

FN - Filename
% Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 10:00
Project    : 380-20077                   Date Received: 09/08/22
Batch No.  : 221073                       Date Extracted: 09/09/22 20:54
Sample ID  : 380-20077-1                 Date Analyzed: 09/09/22 20:54
Lab Samp ID: I073-01                     Dilution Factor: 1
Lab File ID: E109018A                    Matrix: WATER
Ext Btch ID: 22VG39108                   % Moisture: NA
Calib. Ref.: E109013A                    Instrument ID: 39
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0340	0.0400	85	60-140

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 10:00
Project     : 380-20077                   Date Received: 09/08/22
Batch No.   : 221073                       Date Extracted: 09/09/22 22:49
Sample ID   : 380-20077-2                 Date Analyzed: 09/09/22 22:49
Lab Samp ID: I073-02                       Dilution Factor: 1
Lab File ID: EI09021A                       Matrix: WATER
Ext Btch ID: 22VG39108                     % Moisture: NA
Calib. Ref.: EI09013A                       Instrument ID: 39
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0356	0.0400	89	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

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QC SUMMARIES

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/09/22 19:00
Project     : 380-20077                   Date Received: 09/09/22
Batch No.   : 221073                       Date Extracted: 09/09/22 19:00
Sample ID   : MBLK1W                       Date Analyzed: 09/09/22 19:00
Lab Samp ID: VG39I08B                      Dilution Factor: 1
Lab File ID: E109015A                      Matrix: WATER
Ext Btch ID: 22VG39I08                     % Moisture: NA
Calib. Ref.: E109013A                     Instrument ID: 39
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0352	0.0400	88	60-140

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W       LCD1W
LAB SAMPLE ID : VG39I08B                         VG39I08L    VG39I08C
LAB FILE ID  : EI09015A                         EI09016A    EI09017A
DATE PREPARED : 09/09/22 19:00                  09/09/22 19:38  09/09/22 20:16
DATE ANALYZED : 09/09/22 19:00                  09/09/22 19:38  09/09/22 20:16
PREP BATCH   : 22VG39I08                        22VG39I08    22VG39I08
CALIBRATION REF: EI09013A                       EI09013A     EI09013A
  
```

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.511	102	0.500	0.523	105	2	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0479	120	0.0400	0.0475	119	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-20077-1                       380-20077-1MS
LAB SAMPLE ID : 1073-01                          1073-01M
LAB FILE ID  : EI09018A                         EI09019A
DATE PREPARED : 09/09/22 20:54                 09/09/22 21:33
DATE ANALYZED : 09/09/22 20:54                 09/09/22 21:33
PREP BATCH   : 22VG39I08                       22VG39I08
CALIBRATION REF: EI09013A                      EI09013A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.509	102	0.500	0.523	105	3	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0470	118	0.0400	0.0473	118	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-20077

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22I073



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-20077

SDG : 22I073

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 09/08/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSI016WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSI016WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22I073-01M/22I073-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-20077

SDG : 22I073

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 09/08/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSI016WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP5 was within LCS QC limits in J5I016WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP5 was within MS QC limits in 22I073-01M/22I073-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-20077

SDG : 22I073

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 09/08/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSI016WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP8 was within LCS QC limits in J8I016WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP8 was within MS QC limits in 22I108-01M/22I108-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client   : EUOFINS EATON ANALYTICAL
Project  : 380-20077
=====
SDG NO. : 221073
Instrument ID : D5
=====

```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	DSI016WB	1	NA	09/15/2219:40	09/14/2215:15	LI15011A	LI15005A	22DSI016W	Method Blank
LCS1W	J5I016WL	1	NA	09/15/2220:17	09/14/2215:15	LI15013A	LI15005A	22DSI016W	Lab Control Sample (LCS)
380-20077-1	1073-01	1	NA	09/15/2220:54	09/14/2215:15	LI15015A	LI15005A	22DSI016W	Field Sample
380-20077-1MS	1073-01M	1	NA	09/15/2221:49	09/14/2215:15	LI15018A	LI15005A	22DSI016W	Matrix Spike Sample (MS)
380-20077-1MSD	1073-01S	1	NA	09/15/2222:08	09/14/2215:15	LI15019A	LI15005A	22DSI016W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 10:00
Project     : 380-20077                   Date Received: 09/08/22
Batch No.   : 221073                       Date Extracted: 09/14/22 15:15
Sample ID   : 380-20077-1                 Date Analyzed: 09/15/22 20:54
Lab Samp ID: 221073-01                    Dilution Factor: 1
Lab File ID: LI15015A                      Matrix: WATER
Ext Btch ID: 22DSI016W                     % Moisture: NA
Calib. Ref.: LI15004A                      Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.026	0.013	
Motor Oil	ND	0.052	0.026	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.379	0.515	73	60-130
Hexacosane	0.135	0.129	105	60-130

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 970ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 10:00
Project    : 380-20077                   Date Received: 09/08/22
Batch No.  : 221073                       Date Extracted: 09/14/22 15:15
Sample ID  : 380-20077-1                  Date Analyzed: 09/15/22 20:54
Lab Samp ID: 221073-01                    Dilution Factor: 1
Lab File ID: L115015A                     Matrix: WATER
Ext Btch ID: 22DSI016W                    % Moisture: NA
Calib. Ref.: L115005A                     Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.379	0.515	73	60-130
Hexacosane	0.135	0.129	105	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 970ml Final Volume : 5ml
 Prepared by : DLi Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 10:00
Project     : 380-20077                 Date Received: 09/08/22
Batch No.   : 221073                   Date Extracted: 09/14/22 15:15
Sample ID   : 380-20077-1              Date Analyzed: 09/15/22 20:54
Lab Samp ID : 221073-01                 Dilution Factor: 1
Lab File ID : LI15015A                  Matrix: WATER
Ext Btch ID : 22DSI016W                 % Moisture: NA
Calib. Ref.: LI15006A                  Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.052	0.026	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.379	0.515	73	60-130
Hexacosane	0.135	0.129	105	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 970ml Final Volume : 5ml
 Prepared by : DLi Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/14/22 15:15
Project    : 380-20077                   Date Received: 09/14/22
Batch No.  : 221073                       Date Extracted: 09/14/22 15:15
Sample ID  : MBLK1W                       Date Analyzed: 09/15/22 19:40
Lab Samp ID: DSI016WB                     Dilution Factor: 1
Lab File ID: LI15011A                     Matrix: WATER
Ext Btch ID: 22DSI016W                   % Moisture: NA
Calib. Ref.: LI15004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.025	0.012	
Motor Oil	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.347	0.500	69	60-130
Hexacosane	0.124	0.125	99	60-130

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSI016WB	DSI016WL
LAB FILE ID	: LI15011A	LI15012A
DATE PREPARED	: 09/14/22 15:15	09/14/22 15:15
DATE ANALYZED	: 09/15/22 19:40	09/15/22 19:58
PREP BATCH	: 22DSI016W	22DSI016W
CALIBRATION REF:	LI15004A	LI15004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.31	92	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.424	85	60-130
Hexacosane	0.125	0.126	101	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/14/22 15:15
Project     : 380-20077                   Date Received: 09/14/22
Batch No.   : 221073                       Date Extracted: 09/14/22 15:15
Sample ID   : MBLK1W                       Date Analyzed: 09/15/22 19:40
Lab Samp ID: DSI016WB                      Dilution Factor: 1
Lab File ID: L115011A                      Matrix: WATER
Ext Btch ID: 22DSI016W                     % Moisture: NA
Calib. Ref.: L115005A                      Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.347	0.500	69	60-130
Hexacosane	0.124	0.125	99	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 1000ml Final Volume : 5ml
 Prepared by : DLi Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 3520C/8015B

=====

MATRIX : WATER % MOISTURE:NA
DILUTION FACTOR: 1 1
SAMPLE ID : MBLK1W LCS1W
LAB SAMPLE ID : DSI016WB J5I016WL
LAB FILE ID : LI15011A LI15013A
DATE PREPARED : 09/14/22 15:15 09/14/22 15:15
DATE ANALYZED : 09/15/22 19:40 09/15/22 20:17
PREP BATCH : 22DSI016W 22DSI016W
CALIBRATION REF: LI15005A LI15005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP5	ND	2.50	1.05	42	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.403	81	60-130
Hexacosane	0.125	0.114	91	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/14/22 15:15
Project     : 380-20077                   Date Received: 09/14/22
Batch No.   : 221073                       Date Extracted: 09/14/22 15:15
Sample ID   : MBLK1W                       Date Analyzed: 09/15/22 19:40
Lab Samp ID: DSI016WB                     Dilution Factor: 1
Lab File ID: LI15011A                     Matrix: WATER
Ext Btch ID: 22DSI016W                   % Moisture: NA
Calib. Ref.: LI15006A                   Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.347	0.500	69	60-130
Hexacosane	0.124	0.125	99	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
 Prepared by : DLi Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 3520C/8015B

=====

MATRIX : WATER % MOISTURE:NA
DILUTION FACTOR: 1 1
SAMPLE ID : MBLK1W LCS1W
LAB SAMPLE ID : DSI016WB J8I016WL
LAB FILE ID : LI15011A LI15014A
DATE PREPARED : 09/14/22 15:15 09/14/22 15:15
DATE ANALYZED : 09/15/22 19:40 09/15/22 20:35
PREP BATCH : 22DSI016W 22DSI016W
CALIBRATION REF: LI15006A LI15006A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.06	82	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.464	93	60-130
Hexacosane	0.125	0.116	93	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                   1
SAMPLE ID   : 380-20077-1                             380-20077-1MSD
LAB SAMPLE ID : 221073-01                             221073-01S
LAB FILE ID  : LI15015A                               LI15017A
DATE PREPARED : 09/14/22 15:15                       09/14/22 15:15
DATE ANALYZED : 09/15/22 20:54                       09/15/22 21:31
PREP BATCH   : 22DSI016W                             22DSI016W
CALIBRATION REF: LI15004A                             LI15004A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.62	2.71	103	2.60	2.74	105	1	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.525	0.436	83	0.520	0.465	89	60-130
Hexacosane	0.131	0.143	109	0.130	0.139	107	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20077
BATCH NO. : 221073
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                     1
SAMPLE ID   : 380-20077-1                             380-20077-1MS
LAB SAMPLE ID : 221073-01                             221073-01S
LAB FILE ID  : LI15015A                               LI15018A
DATE PREPARED : 09/14/22 15:15                       09/14/22 15:15
DATE ANALYZED : 09/15/22 20:54                       09/15/22 22:08
PREP BATCH   : 22DSI016W                             22DSI016W
CALIBRATION REF: LI15005A                             LI15005A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.78	2.59	93	2.58	2.64	103	2	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.555	0.478	86	0.515	0.510	99	60-130
Hexacosane	0.139	0.149	107	0.129	0.139	108	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-20340
BATCH NO. : 221108
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                     1
SAMPLE ID   : 380-20340-1                             380-20340-1MSD
LAB SAMPLE ID : 221108-01                             221108-01S
LAB FILE ID  : LI15021A                               LI15022A
DATE PREPARED : 09/14/22 15:15                       09/14/22 15:15
DATE ANALYZED : 09/15/22 22:45                       09/15/22 23:03
PREP BATCH   : 22DSI016W                             22DSI016W
CALIBRATION REF: LI15006A                             LI15006A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.55	1.99	78	2.72	2.58	95	26	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.510	0.474	93	0.545	0.583	107	60-130
Hexacosane	0.127	0.137	107	0.136	0.155	114	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-20077

METHOD SW8015C
ALCOHOLS BY GC

SDG#: 22I073



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-20077

SDG : 22I073

METHOD SW8015C
ALCOHOLS BY GC

A total of two(2) water samples were received on 09/08/22 to be analyzed for Alcohols by GC in accordance with Method SW8015C and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time, except for I073-02.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, two(2) method blanks were analyzed. MEI002WB and MEI003WB were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, two(2) sets of LCS/LCD were analyzed. MEI002WL/MEI002WC and MEI003WL/MEI003WC were within LCS limits. Refer to LCS summary forms for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Ethanol was within MS QC limits in I073-01M/I073-01S. Refer to Matrix QC summary form for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL
 Project : 380-20077
 SDG NO. : 22I073
 Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	MEI002WB	1	NA	09/09/2211:28	NA	T109004A	T109002A	MEI002W	Method Blank
LCS1W	MEI002WL	1	NA	09/09/2211:46	NA	T109005A	T109002A	MEI002W	Lab Control Sample (LCS)
LCD1W	MEI002WC	1	NA	09/09/2211:59	NA	T109006A	T109002A	MEI002W	LCS Duplicate
380-20077-1	I073-01	1	NA	09/09/2212:13	NA	T109007A	T109002A	MEI002W	Field Sample
380-20077-1MS	I073-01M	1	NA	09/09/2213:03	NA	T109010A	T109002A	MEI002W	Matrix Spike Sample (MS)
380-20077-1MSD	I073-01S	1	NA	09/09/2212:50	NA	T109009A	T109002A	MEI002W	MS Duplicate (MSD)
MBLK2W	MEI003WB	1	NA	09/14/2212:59	NA	T114004A	T114002A	MEI003W	Method Blank
LCS2W	MEI003WL	1	NA	09/14/2213:15	NA	T114005A	T114002A	MEI003W	Lab Control Sample (LCS)
LCD2W	MEI003WC	1	NA	09/14/2213:29	NA	T114006A	T114002A	MEI003W	LCS Duplicate
380-20077-2	I073-02	1	NA	09/14/2213:43	NA	T114007A	T114002A	MEI003W	Field Sample

FN - Filename
 % Moist - Percent Moisture



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SAMPLE RESULTS

METHOD SW8015C
ALCOHOLS BY GC

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=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 09/06/22
Project     : 380-20077                     Date Received: 09/08/22
Batch No.   : 221073                        Date Extracted: NA
Sample ID   : 380-20077-1                  Date Analyzed: 09/09/22 12:13
Lab Samp ID: 1073-01                       Dilution Factor: 1
Lab File ID: T109007A                      Matrix       : WATER
Ext Btch ID: MEI002W                       % Moisture   : NA
Calib. Ref.: T109002A                      Instrument ID : GCT050
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit



METHOD SW8015C
ALCOHOLS BY GC

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=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 09/06/22
Project     : 380-20077                     Date Received: 09/08/22
Batch No.   : 221073                         Date Extracted: NA
Sample ID   : 380-20077-2                   Date Analyzed: 09/14/22 13:43
Lab Samp ID: I073-02                         Dilution Factor: 1
Lab File ID: T114007A                       Matrix          : WATER
Ext Btch ID: MEI003W                         % Moisture     : NA
Calib. Ref.: T114002A                       Instrument ID   : GCT050
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PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit



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QC SUMMARIES

METHOD SW8015C
ALCOHOLS BY GC

```
=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: NA
Project     : 380-20077                      Date Received: NA
Batch No.   : 221073                         Date Extracted: NA
Sample ID   : MBLK1W                         Date Analyzed: 09/09/22 11:28
Lab Samp ID: MEI002WB                       Dilution Factor: 1
Lab File ID: T109004A                       Matrix          : WATER
Ext Btch ID: MEI002W                         % Moisture      : NA
Calib. Ref.: T109002A                       Instrument ID   : GCT050
=====
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit



EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-20077
BATCH NO.: 221073
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: MEI002WB MEI002WL MEI002WC
LAB FILE ID: TI09004A TI09005A TI09006A
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 09/09/2211:28 09/09/2211:46 09/09/2211:59 DATE RECEIVED: NA
PREP. BATCH: MEI002W MEI002W MEI002W
CALIB. REF: TI09002A TI09002A TI09002A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	8400	84	10000	8590	86	2	60-130	30

METHOD SW8015C
ALCOHOLS BY GC

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=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: NA
Project     : 380-20077                      Date Received: NA
Batch No.   : 221073                         Date Extracted: NA
Sample ID   : MBLK2W                         Date Analyzed: 09/14/22 12:59
Lab Samp ID: ME1003WB                       Dilution Factor: 1
Lab File ID: TI14004A                       Matrix          : WATER
Ext Btch ID: ME1003W                         % Moisture      : NA
Calib. Ref.: TI14002A                       Instrument ID   : GCT050
=====
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-20077
BATCH NO.: 221073
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: MEI003WB MEI003WL MEI003WC
LAB FILE ID: TI14004A TI14005A TI14006A
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 09/14/2212:59 09/14/2213:15 09/14/2213:29 DATE RECEIVED: NA
PREP. BATCH: MEI003W MEI003W MEI003W
CALIB. REF: TI14002A TI14002A TI14002A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	10600	106	10000	9530	95	11	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-20077
BATCH NO.: 221073
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 380-20077-1
LAB SAMP ID: I073-01 I073-01M I073-01S
LAB FILE ID: TI09007A TI09010A TI09009A
DATE EXTRACTED: NA NA NA DATE COLLECTED: 09/06/22
DATE ANALYZED: 09/09/2212:13 09/09/2213:03 09/09/2212:50 DATE RECEIVED: 09/08/22
PREP. BATCH: ME1002W ME1002W ME1002W
CALIB. REF: TI09002A TI09002A TI09002A

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9560	96	10000	9900	99	3	60-130	30

October 11, 2022

Debbie Frank
 Eurofins Eaton Analytical
 750 Royal Oaks Drive
 Suite 100
 Monrovia, CA 91016-

Project Name: INTERA - Red-Hill-Incident Project # 38000861 Job # 380-20077-1
 Physis Project ID: 1407003-289

Dear Debbie,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 9/8/2022. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1
Base/Neutral Extractable Compounds by EPA 625.1
Acid Extractable Compounds w/ PAHs by EPA 625.1
6-tert-Butyl-2,4-dimethylphenol by EPA 625.1
2,6-Di-tert-butylphenol by EPA 625.1
2,6-Di-tert-butyl-4-methylphenol by EPA 625.1
p-tert-Butylphenol by EPA 625.1

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,


 Misty Mercier

714 602-5320
 Extension 202
 mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-289

INTERA - Red-Hill-Incident Project # 38000861 Job # 380-20077-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
99896	BWS2253-J1	AQ (380-20077-1)	9/6/2022	10:00	Samplewater	Not Specified

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ABBREVIATIONS and ACRONYMS

QM	Quality Manual
QA	Quality Assurance
QC	Quality Control
MDL	method detection limit
RL	reporting limit
R1	project sample
R2	project sample replicate
MS1	matrix spike
MS2	matrix spike replicate
B1	procedural blank
B2	procedural blank replicate
BS1	blank spike
BS2	blank spike replicate
LCS1	laboratory control spike
LCS2	laboratory control spike replicate
LCM1	laboratory control material
LCM2	laboratory control material replicate
CRM1	certified reference material
CRM2	certified reference material replicate
RPD	relative percent difference
LMW	low molecular weight
HMW	high molecular weight

QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS₁/MS₂, BS₁/BS₂, LCS₁/LCS₂, LCM₁/LCM₂, CRM₁/CRM₂, surrogate spikes and/or replicate project sample analysis (R₁/R₂) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.

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PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
B	analyte was detected in the procedural blank greater than 10 times the MDL
E	analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated
H	sample received and/or analyzed past the recommended holding time
J	analyte was detected at a concentration below the RL and above the MDL, reported value is estimated
N	insufficient sample, analysis could not be performed
M	analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification
SH	analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply
SL	analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply
NH	project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply
Q	analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification
R	Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples

CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported are ND at the RL.

ANALYTICAL REPOR

TERRA AURA
ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

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Acid Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 99896-R1	BWS2253-J1 AQ (380-20077-1)	Matrix: Samplewater					Sampled: 06-Sep-22 10:00			Received: 08-Sep-22	
(2,4,6-Tribromophenol)	EPA 625.1	% Recovery	128	1			Total		O-38138	13-Sep-22	06-Oct-22
(d5-Phenol)	EPA 625.1	% Recovery	25	1			Total		O-38138	13-Sep-22	06-Oct-22
2,4,5-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2,4,6-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2,4-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2,4-Dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
2,6-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2,6-Di-tert-butyl-4-methylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2,6-Di-tert-butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2-Chlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2-Methyl-4,6-dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
2-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
2-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
3+4-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
4-Chloro-3-methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
4-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
6-tert-butyl-2,4-dimethylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Benzoic Acid	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
Benzyl Alcohol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
Pentachlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Phenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-38138	13-Sep-22	06-Oct-22
p-tert-Butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 99896-R1	BWS2253-J1 AQ (380-20077-1)		Matrix: Samplewater				Sampled: 06-Sep-22 10:00			Received: 08-Sep-22	
2-Chloronaphthalene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
2-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
3-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
4-Bromophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
4-Chloroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
4-Chlorophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
4-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Aniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Benzidine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Bis(2-Chloroethoxy) methane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Bis(2-Chloroethyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Bis(2-Chloroisopropyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Dibenzofuran	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Hexachloroethane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
Nitrobenzene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
N-Nitrosodi-n-propylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22
N-Nitrosodiphenylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38138	13-Sep-22	06-Oct-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 99896-R1	BWS2253-J1 AQ (380-20077-1)	Matrix: Samplewater					Sampled: 06-Sep-22 10:00			Received: 08-Sep-22	
(d10-Acenaphthene)	EPA 625.1	% Recovery	109	1			Total		0-38138	13-Sep-22	06-Oct-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	90	1			Total		0-38138	13-Sep-22	06-Oct-22
(d12-Chrysene)	EPA 625.1	% Recovery	68	1			Total		0-38138	13-Sep-22	06-Oct-22
(d12-Perylene)	EPA 625.1	% Recovery	84	1			Total		0-38138	13-Sep-22	06-Oct-22
(d8-Naphthalene)	EPA 625.1	% Recovery	88	1			Total		0-38138	13-Sep-22	06-Oct-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Acenaphthene	EPA 625.1	µg/L	0.0137	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		0-38138	13-Sep-22	06-Oct-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38138	13-Sep-22	06-Oct-22



QUALITY CONTROL REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE
							LEVEL	RESULT	% LIMITS	% LIMITS	
Sample ID: 99895-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
	Method: EPA 625.1			Batch ID: O-38138		Prepared: 13-Sep-22		Analyzed: 06-Oct-22			
(2,4,6-Tribromophenol)	Total	130	1			% Recovery	100	130	44 - 159%	PASS	
(d5-Phenol)	Total	95	1			% Recovery	100	95	20 - 121%	PASS	
2,4,5-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L					
2,4,6-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L					
2,4-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L					
2,4-Dinitrophenol	Total	ND	1	0.1	0.2	µg/L					
2,6-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L					
2,6-Di-tert-butyl-4-methylphenol	Total	ND	1	0.05	0.1	µg/L					
2,6-Di-tert-butylphenol	Total	ND	1	0.05	0.1	µg/L					
2-Chlorophenol	Total	ND	1	0.05	0.1	µg/L					
2-Methyl-4,6-dinitrophenol	Total	ND	1	0.1	0.2	µg/L					
2-Methylphenol	Total	ND	1	0.1	0.2	µg/L					
2-Nitrophenol	Total	ND	1	0.1	0.2	µg/L					
3+4-Methylphenol	Total	ND	1	0.1	0.2	µg/L					
4-Chloro-3-methylphenol	Total	ND	1	0.1	0.2	µg/L					
4-Nitrophenol	Total	ND	1	0.1	0.2	µg/L					
6-tert-butyl-2,4-dimethylphenol	Total	ND	1	0.05	0.1	µg/L					
Benzoic Acid	Total	ND	1	0.1	0.2	µg/L					
Benzyl Alcohol	Total	ND	1	0.1	0.2	µg/L					
Pentachlorophenol	Total	ND	1	0.05	0.1	µg/L					
Phenol	Total	ND	1	0.1	0.2	µg/L					
p-tert-Butylphenol	Total	ND	1	0.05	0.1	µg/L					

Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION	QA CODE
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 99895-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22		Analyzed: 06-Oct-22					
(2,4,6-Tribromophenol)	Total	148	1			% Recovery	100	0	148	44 - 159%	PASS	
(d5-Phenol)	Total	116	1			% Recovery	100	0	116	20 - 121%	PASS	
2,4,5-Trichlorophenol	Total	0.702	1	0.05	0.1	µg/L	1	0	70	57 - 116%	PASS	
2,4,6-Trichlorophenol	Total	0.725	1	0.05	0.1	µg/L	1	0	73	56 - 118%	PASS	
2,4-Dichlorophenol	Total	0.761	1	0.05	0.1	µg/L	1	0	76	51 - 117%	PASS	
2,4-Dinitrophenol	Total	0.369	1	0.1	0.2	µg/L	1	0	37	0 - 152%	PASS	
2,6-Dichlorophenol	Total	0.711	1	0.05	0.1	µg/L	1	0	71	30 - 130%	PASS	
2,6-Di-tert-butyl-4-methylphenol	Total	0.753	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	
2,6-Di-tert-butylphenol	Total	0.853	1	0.05	0.1	µg/L	1	0	85	50 - 150%	PASS	
2-Chlorophenol	Total	0.734	1	0.05	0.1	µg/L	1	0	73	41 - 110%	PASS	
2-Methyl-4,6-dinitrophenol	Total	0.715	1	0.1	0.2	µg/L	1	0	71	0 - 141%	PASS	
2-Methylphenol	Total	0.832	1	0.1	0.2	µg/L	1	0	83	40 - 117%	PASS	
2-Nitrophenol	Total	0.574	1	0.1	0.2	µg/L	1	0	57	40 - 117%	PASS	
3+4-Methylphenol	Total	0.799	1	0.1	0.2	µg/L	1	0	80	0 - 130%	PASS	
4-Chloro-3-methylphenol	Total	0.611	1	0.1	0.2	µg/L	1	0	61	51 - 128%	PASS	
4-Nitrophenol	Total	0.49	1	0.1	0.2	µg/L	1	0	49	10 - 164%	PASS	
6-tert-butyl-2,4-dimethylphenol	Total	0.808	1	0.05	0.1	µg/L	1	0	81	50 - 150%	PASS	
Benzoic Acid	Total	0.121	1	0.1	0.2	µg/L	1	0	12	2 - 145%	PASS	
Benzyl Alcohol	Total	0.791	1	0.1	0.2	µg/L	1	0	79	43 - 148%	PASS	
Pentachlorophenol	Total	0.738	1	0.05	0.1	µg/L	1	0	74	36 - 111%	PASS	
Phenol	Total	0.736	1	0.1	0.2	µg/L	1	0	74	29 - 114%	PASS	
p-tert-Butylphenol	Total	1.15	1	0.05	0.1	µg/L	1	0	115	50 - 150%	PASS	

Acid Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Sample ID: 99895-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:			
		Method: EPA 625.1			Batch ID: O-38138			Prepared: 13-Sep-22			Analyzed: 06-Oct-22			
(2,4,6-Tribromophenol)	Total	146	1			% Recovery	100	0	146	44 - 159%	PASS	1	30	PASS
(d5-Phenol)	Total	100	1			% Recovery	100	0	100	20 - 121%	PASS	15	30	PASS
2,4,5-Trichlorophenol	Total	0.661	1	0.05	0.1	µg/L	1	0	66	57 - 116%	PASS	6	30	PASS
2,4,6-Trichlorophenol	Total	0.678	1	0.05	0.1	µg/L	1	0	68	56 - 118%	PASS	6	30	PASS
2,4-Dichlorophenol	Total	0.701	1	0.05	0.1	µg/L	1	0	70	51 - 117%	PASS	8	30	PASS
2,4-Dinitrophenol	Total	0.485	1	0.1	0.2	µg/L	1	0	49	0 - 152%	PASS	26	30	PASS
2,6-Dichlorophenol	Total	0.67	1	0.05	0.1	µg/L	1	0	67	30 - 130%	PASS	6	30	PASS
2,6-Di-tert-butyl-4-methylphenol	Total	0.605	1	0.05	0.1	µg/L	1	0	61	50 - 150%	PASS	22	30	PASS
2,6-Di-tert-butylphenol	Total	0.751	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	12	30	PASS
2-Chlorophenol	Total	0.663	1	0.05	0.1	µg/L	1	0	66	41 - 110%	PASS	10	30	PASS
2-Methyl-4,6-dinitrophenol	Total	0.83	1	0.1	0.2	µg/L	1	0	83	0 - 141%	PASS	14	30	PASS
2-Methylphenol	Total	0.729	1	0.1	0.2	µg/L	1	0	73	40 - 117%	PASS	13	30	PASS
2-Nitrophenol	Total	0.55	1	0.1	0.2	µg/L	1	0	55	40 - 117%	PASS	4	30	PASS
3+4-Methylphenol	Total	0.693	1	0.1	0.2	µg/L	1	0	69	0 - 130%	PASS	15	30	PASS
4-Chloro-3-methylphenol	Total	0.596	1	0.1	0.2	µg/L	1	0	60	51 - 128%	PASS	2	30	PASS
4-Nitrophenol	Total	0.554	1	0.1	0.2	µg/L	1	0	55	10 - 164%	PASS	12	30	PASS
6-tert-butyl-2,4-dimethylphenol	Total	0.644	1	0.05	0.1	µg/L	1	0	64	50 - 150%	PASS	23	30	PASS
Benzoic Acid	Total	0.137	1	0.1	0.2	µg/L	1	0	14	2 - 145%	PASS	15	30	PASS
Benzyl Alcohol	Total	0.697	1	0.1	0.2	µg/L	1	0	70	43 - 148%	PASS	12	30	PASS
Pentachlorophenol	Total	0.799	1	0.05	0.1	µg/L	1	0	80	36 - 111%	PASS	8	30	PASS
Phenol	Total	0.648	1	0.1	0.2	µg/L	1	0	65	29 - 114%	PASS	13	30	PASS
p-tert-Butylphenol	Total	1.1	1	0.05	0.1	µg/L	1	0	110	50 - 150%	PASS	4	30	PASS

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE
							LEVEL	RESULT	%	LIMITS	%
Sample ID: 99895-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38138		Prepared: 13-Sep-22		Analyzed: 06-Oct-22					
2-Chloronaphthalene	Total	ND	1	0.05	0.1	µg/L					
2-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
3-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
4-Bromophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					
4-Chloroaniline	Total	ND	1	0.05	0.1	µg/L					
4-Chlorophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					
4-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					
Aniline	Total	ND	1	0.05	0.1	µg/L					
Benzidine	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroethoxy) methane	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroethyl) ether	Total	ND	1	0.05	0.1	µg/L					
Bis(2-Chloroisopropyl) ether	Total	ND	1	0.05	0.1	µg/L					
Dibenzofuran	Total	ND	1	0.05	0.1	µg/L					
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L					
Hexachloroethane	Total	ND	1	0.05	0.1	µg/L					
Nitrobenzene	Total	ND	1	0.05	0.1	µg/L					
N-Nitrosodi-n-propylamine	Total	ND	1	0.05	0.1	µg/L					
N-Nitrosodiphenylamine	Total	ND	1	0.05	0.1	µg/L					

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 99895-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22		Analyzed: 06-Oct-22					
2-Chloronaphthalene	Total	0.795	1	0.05	0.1	µg/L	1	0	80	53 - 130%	PASS	
2-Nitroaniline	Total	0.694	1	0.05	0.1	µg/L	1	0	69	69 - 114%	PASS	
3-Nitroaniline	Total	0.558	1	0.05	0.1	µg/L	1	0	56	23 - 137%	PASS	
4-Bromophenylphenyl ether	Total	0.919	1	0.05	0.1	µg/L	1	0	92	61 - 132%	PASS	
4-Chloroaniline	Total	0.884	1	0.05	0.1	µg/L	1	0	88	50 - 150%	PASS	
4-Chlorophenylphenyl ether	Total	0.889	1	0.05	0.1	µg/L	1	0	89	63 - 130%	PASS	
4-Nitroaniline	Total	0.995	1	0.05	0.1	µg/L	1	0	100	10 - 159%	PASS	
Aniline	Total	0.749	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	
Benzidine	Total	5.27	1	0.05	0.1	µg/L	5	0	105	0 - 125%	PASS	
Bis(2-Chloroethoxy) methane	Total	0.856	1	0.05	0.1	µg/L	1	0	86	66 - 122%	PASS	
Bis(2-Chloroethyl) ether	Total	0.765	1	0.05	0.1	µg/L	1	0	76	43 - 127%	PASS	
Bis(2-Chloroisopropyl) ether	Total	1.09	1	0.05	0.1	µg/L	1	0	109	49 - 128%	PASS	
Dibenzofuran	Total	0.82	1	0.05	0.1	µg/L	1	0	82	50 - 150%	PASS	
Disalicylidenepropanediamin	Total	37.6	1	0.05	0.1	µg/L	50	0	75	50 - 150%	PASS	
Hexachloroethane	Total	0.781	1	0.05	0.1	µg/L	1	0	78	27 - 130%	PASS	
Nitrobenzene	Total	0.815	1	0.05	0.1	µg/L	1	0	81	54 - 111%	PASS	
N-Nitrosodi-n-propylamine	Total	0.692	1	0.05	0.1	µg/L	1	0	69	61 - 152%	PASS	
N-Nitrosodiphenylamine	Total	0.825	1	0.05	0.1	µg/L	1	0	82	49 - 142%	PASS	

Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY		PRECISION		QA CODEc	
									%	LIMITS	%	LIMITS		
Sample ID: 99895-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:				
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22		Analyzed: 06-Oct-22							
2-Chloronaphthalene	Total	0.745	1	0.05	0.1	µg/L	1	0	75	53 - 130%	PASS	8	30	PASS
2-Nitroaniline	Total	0.713	1	0.05	0.1	µg/L	1	0	71	69 - 114%	PASS	3	30	PASS
3-Nitroaniline	Total	0.611	1	0.05	0.1	µg/L	1	0	61	23 - 137%	PASS	9	30	PASS
4-Bromophenylphenyl ether	Total	0.887	1	0.05	0.1	µg/L	1	0	89	61 - 132%	PASS	3	30	PASS
4-Chloroaniline	Total	0.724	1	0.05	0.1	µg/L	1	0	72	50 - 150%	PASS	20	30	PASS
4-Chlorophenylphenyl ether	Total	0.835	1	0.05	0.1	µg/L	1	0	83	63 - 130%	PASS	6	30	PASS
4-Nitroaniline	Total	1.01	1	0.05	0.1	µg/L	1	0	101	10 - 159%	PASS	1	30	PASS
Aniline	Total	0.696	1	0.05	0.1	µg/L	1	0	70	50 - 150%	PASS	7	30	PASS
Benzidine	Total	4.53	1	0.05	0.1	µg/L	5	0	91	0 - 125%	PASS	14	30	PASS
Bis(2-Chloroethoxy) methane	Total	0.776	1	0.05	0.1	µg/L	1	0	78	66 - 122%	PASS	10	30	PASS
Bis(2-Chloroethyl) ether	Total	0.657	1	0.05	0.1	µg/L	1	0	66	43 - 127%	PASS	14	30	PASS
Bis(2-Chloroisopropyl) ether	Total	1.06	1	0.05	0.1	µg/L	1	0	106	49 - 128%	PASS	3	30	PASS
Dibenzofuran	Total	0.771	1	0.05	0.1	µg/L	1	0	77	50 - 150%	PASS	6	30	PASS
Disalicylidene-propanediamin	Total	38.5	1	0.05	0.1	µg/L	50	0	77	50 - 150%	PASS	3	30	PASS
Hexachloroethane	Total	0.653	1	0.05	0.1	µg/L	1	0	65	27 - 130%	PASS	18	30	PASS
Nitrobenzene	Total	0.688	1	0.05	0.1	µg/L	1	0	69	54 - 111%	PASS	17	30	PASS
N-Nitrosodi-n-propylamine	Total	0.778	1	0.05	0.1	µg/L	1	0	78	61 - 152%	PASS	12	30	PASS
N-Nitrosodiphenylamine	Total	0.828	1	0.05	0.1	µg/L	1	0	83	49 - 142%	PASS	1	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE
							LEVEL	RESULT	% LIMITS	% LIMITS	
Sample ID: 99895-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22		Analyzed: 06-Oct-22				
(d10-Acenaphthene)	Total	93	1			% Recovery	100	93	65 - 113%	PASS	
(d10-Phenanthrene)	Total	92	1			% Recovery	100	92	80 - 111%	PASS	
(d12-Chrysene)	Total	86	1			% Recovery	100	86	60 - 139%	PASS	
(d12-Perylene)	Total	81	1			% Recovery	100	81	36 - 161%	PASS	
(d8-Naphthalene)	Total	102	1			% Recovery	100	102	44 - 119%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L					
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L					
Anthracene	Total	ND	1	0.001	0.005	µg/L					
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L					
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L					
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Biphenyl	Total	ND	1	0.001	0.005	µg/L					
Chrysene	Total	ND	1	0.001	0.005	µg/L					
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L					
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L					
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L					

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Fluorene	Total	ND	1	0.001	0.005	µg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L							
Naphthalene	Total	ND	1	0.001	0.005	µg/L							
Perylene	Total	ND	1	0.001	0.005	µg/L							
Phenanthrene	Total	ND	1	0.001	0.005	µg/L							
Pyrene	Total	ND	1	0.001	0.005	µg/L							



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 99895-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22		Analyzed: 06-Oct-22					
(d10-Acenaphthene)	Total	93	1			% Recovery	100	0	93	65 - 113%	PASS	
(d10-Phenanthrene)	Total	93	1			% Recovery	100	0	93	80 - 111%	PASS	
(d12-Chrysene)	Total	95	1			% Recovery	100	0	95	60 - 139%	PASS	
(d12-Perylene)	Total	88	1			% Recovery	100	0	88	36 - 161%	PASS	
(d8-Naphthalene)	Total	102	1			% Recovery	100	0	102	44 - 119%	PASS	
1-Methylnaphthalene	Total	0.402	1	0.001	0.005	µg/L	0.5	0	80	49 - 117%	PASS	
1-Methylphenanthrene	Total	0.43	1	0.001	0.005	µg/L	0.5	0	86	66 - 127%	PASS	
2,3,5-Trimethylnaphthalene	Total	0.593	1	0.001	0.005	µg/L	0.5	0	119	57 - 120%	PASS	
2,6-Dimethylnaphthalene	Total	0.537	1	0.001	0.005	µg/L	0.5	0	107	54 - 117%	PASS	
2-Methylnaphthalene	Total	1.61	1	0.001	0.005	µg/L	1.5	0	107	47 - 130%	PASS	
Acenaphthene	Total	2.2	1	0.001	0.005	µg/L	3	0	73	53 - 131%	PASS	
Acenaphthylene	Total	2.24	1	0.001	0.005	µg/L	3	0	75	43 - 140%	PASS	
Anthracene	Total	1.58	1	0.001	0.005	µg/L	1.5	0	105	58 - 135%	PASS	
Benz[a]anthracene	Total	1.45	1	0.001	0.005	µg/L	1.5	0	97	55 - 145%	PASS	
Benzo[a]pyrene	Total	1.96	1	0.001	0.005	µg/L	1.5	0	131	51 - 143%	PASS	
Benzo[b]fluoranthene	Total	1.59	1	0.001	0.005	µg/L	1.5	0	106	46 - 165%	PASS	
Benzo[e]pyrene	Total	0.495	1	0.001	0.005	µg/L	0.5	0	99	42 - 152%	PASS	
Benzo[g,h,i]perylene	Total	1.81	1	0.001	0.005	µg/L	1.5	0	121	63 - 133%	PASS	
Benzo[k]fluoranthene	Total	1.51	1	0.001	0.005	µg/L	1.5	0	101	56 - 145%	PASS	
Biphenyl	Total	0.527	1	0.001	0.005	µg/L	0.5	0	105	56 - 119%	PASS	
Chrysene	Total	1.71	1	0.001	0.005	µg/L	1.5	0	114	56 - 141%	PASS	
Dibenz[a,h]anthracene	Total	1.56	1	0.001	0.005	µg/L	1.5	0	104	55 - 150%	PASS	
Dibenzo[a,l]pyrene	Total	0.307	1	0.001	0.005	µg/L	0.5	0	61	50 - 150%	PASS	
Dibenzothiophene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	75 - 113%	PASS	

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Fluoranthene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	60 - 146%	PASS		
Fluorene	Total	1.46	1	0.001	0.005	µg/L	1.5	0	97	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	1.6	1	0.001	0.005	µg/L	1.5	0	107	50 - 151%	PASS		
Naphthalene	Total	1.38	1	0.001	0.005	µg/L	1.5	0	92	41 - 126%	PASS		
Perylene	Total	0.436	1	0.001	0.005	µg/L	0.5	0	87	48 - 141%	PASS		
Phenanthrene	Total	1.62	1	0.001	0.005	µg/L	1.5	0	108	67 - 127%	PASS		
Pyrene	Total	1.6	1	0.001	0.005	µg/L	1.5	0	107	54 - 156%	PASS		



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Sample ID: 99895-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:			
Method: EPA 625.1		Batch ID: O-38138			Prepared: 13-Sep-22			Analyzed: 06-Oct-22						
(d10-Acenaphthene)	Total	89	1			% Recovery	100	0	89	65 - 113%	PASS	4	30	PASS
(d10-Phenanthrene)	Total	93	1			% Recovery	100	0	93	80 - 111%	PASS	0	30	PASS
(d12-Chrysene)	Total	101	1			% Recovery	100	0	101	60 - 139%	PASS	6	30	PASS
(d12-Perylene)	Total	84	1			% Recovery	100	0	84	36 - 161%	PASS	5	30	PASS
(d8-Naphthalene)	Total	94	1			% Recovery	100	0	94	44 - 119%	PASS	8	30	PASS
1-Methylnaphthalene	Total	0.388	1	0.001	0.005	µg/L	0.5	0	78	49 - 117%	PASS	3	30	PASS
1-Methylphenanthrene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	66 - 127%	PASS	2	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.579	1	0.001	0.005	µg/L	0.5	0	116	57 - 120%	PASS	3	30	PASS
2,6-Dimethylnaphthalene	Total	0.586	1	0.001	0.005	µg/L	0.5	0	117	54 - 117%	PASS	9	30	PASS
2-Methylnaphthalene	Total	1.51	1	0.001	0.005	µg/L	1.5	0	101	47 - 130%	PASS	6	30	PASS
Acenaphthene	Total	2.12	1	0.001	0.005	µg/L	3	0	71	53 - 131%	PASS	3	30	PASS
Acenaphthylene	Total	2.17	1	0.001	0.005	µg/L	3	0	72	43 - 140%	PASS	4	30	PASS
Anthracene	Total	1.59	1	0.001	0.005	µg/L	1.5	0	106	58 - 135%	PASS	1	30	PASS
Benz[a]anthracene	Total	1.56	1	0.001	0.005	µg/L	1.5	0	104	55 - 145%	PASS	7	30	PASS
Benzo[a]pyrene	Total	1.9	1	0.001	0.005	µg/L	1.5	0	127	51 - 143%	PASS	3	30	PASS
Benzo[b]fluoranthene	Total	1.59	1	0.001	0.005	µg/L	1.5	0	106	46 - 165%	PASS	0	30	PASS
Benzo[e]pyrene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	42 - 152%	PASS	6	30	PASS
Benzo[g,h,i]perylene	Total	1.79	1	0.001	0.005	µg/L	1.5	0	119	63 - 133%	PASS	2	30	PASS
Benzo[k]fluoranthene	Total	1.48	1	0.001	0.005	µg/L	1.5	0	99	56 - 145%	PASS	2	30	PASS
Biphenyl	Total	0.582	1	0.001	0.005	µg/L	0.5	0	116	56 - 119%	PASS	10	30	PASS
Chrysene	Total	1.8	1	0.001	0.005	µg/L	1.5	0	120	56 - 141%	PASS	5	30	PASS
Dibenz[a,h]anthracene	Total	1.57	1	0.001	0.005	µg/L	1.5	0	105	55 - 150%	PASS	1	30	PASS
Dibenzo[a,l]pyrene	Total	0.302	1	0.001	0.005	µg/L	0.5	0	60	50 - 150%	PASS	2	30	PASS
Dibenzothiophene	Total	0.434	1	0.001	0.005	µg/L	0.5	0	87	75 - 113%	PASS	1	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Fluoranthene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	60 - 146%	PASS	0	30	PASS
Fluorene	Total	1.33	1	0.001	0.005	µg/L	1.5	0	89	58 - 131%	PASS	9	30	PASS
Indeno[1,2,3-cd]pyrene	Total	1.64	1	0.001	0.005	µg/L	1.5	0	109	50 - 151%	PASS	2	30	PASS
Naphthalene	Total	1.86	1	0.001	0.005	µg/L	1.5	0	124	41 - 126%	PASS	30	30	PASS
Perylene	Total	0.418	1	0.001	0.005	µg/L	0.5	0	84	48 - 141%	PASS	4	30	PASS
Phenanthrene	Total	1.58	1	0.001	0.005	µg/L	1.5	0	105	67 - 127%	PASS	3	30	PASS
Pyrene	Total	1.57	1	0.001	0.005	µg/L	1.5	0	105	54 - 156%	PASS	2	30	PASS

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PHYSIS
TENTATIVELY
IDENTIFIED COMPOUNDS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Sample ID: 99896

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.4300	6.2964	1111	Anthracene-D10-	1517-22-2	96
11.5036	0.7627	135	Ethanol, 2-(hexyloxy)-	112-25-4	97

Concentration estimated using the response for Anthracene-d10

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Sample ID: Lab Blank Batch O-38138

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.4297	7.2335	1111	Anthracene-D10	1517-22-2	97
No TICs were detectable in this sample.					

Concentration estimated using the response for Anthracene-d10

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PERFORMANCE CHAIN OF CUSTODY

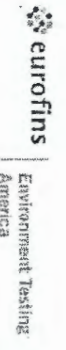
TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:				
Client Contact: Shipping/Receiving		Phone:	Frank, Debbie L		380-21096-1				
Company: Physics Environmental Laboratories		E-Mail: Debbie.Frank@eurofins.com	State of Origin: Hawaii		Page 1 of 1				
Address: 1904 W right Circle,		Due Date Requested: 9/21/2022	Accreditations Required (See note): State - Hawaii		Job #: 380-20077-1				
City: Anaheim		TAT Requested (days):	Analysis Requested						
State, Zip: CA, 92806									
Phone:		PO #:	Preservation Codes:						
Email:		WO #:	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Project Name: INTERA - Red-Hill-Incident		Project #: 38000861	M - Hexane N - N/A O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)						
Site: Honolulu BWS Sites		SSOW#:	Special Instructions/Note:						
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Substrates	Total Number of Containers
BWS2253-J1-AQ (380-20077-1)	9/6/22	10:00	Hawaiian	Water		X	X	X	8
<p>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 analytes/substrates 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.</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Special Instructions/QC Requirements: <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p>									
Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:				
Relinquished by: <i>UJ</i>		Date/Time: 9/14/22	Company: <i>CEA</i>		Received by: <i>Debbie Frank</i>		Date/Time: 9/16/22		Company: <i>PHYSIS</i>
Relinquished by:		Date/Time:	Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					

Project Iteration ID: 1407003-289
 Client Name: Eurofins Eaton Analytical
 Project Name: INTERA - Red-Hill-Incident Project
 # 38000861 Job # 380-20077-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: MN
2. Date Received: 9/8/22
3. Time Received: 1435
4. Client Name: Eurofins
5. Courier Information: (Please circle)
 - Client
 - UPS
 - Area Fast
 - DRS
 - FedEx
 - GSO/GLS
 - Ontrac
 - PAMS
 - PHYSIS Driver:
 - i. Start Time: _____
 - ii. End Time: _____
 - iii. Total Mileage: _____
 - iv. Number of Pickups: _____
6. Container Information: (Please put the # of containers or circle none)
 - Cooler
 - Styrofoam Cooler
 - Boxes
 - None
 - Carboy(s)
 - Carboy Trash Can(s)
 - Carboy Cap(s)
 - Other _____
7. What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
8. Randomly Selected Samples Temperature (°C): 6.2
 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: RGH

Sample Integrity Upon Receipt:

1. COC(s) included and completely filled out..... Yes / No
2. All sample containers arrived intact..... Yes / No
3. All samples listed on COC(s) are present..... Yes / No
4. Information on containers consistent with information on COC(s)..... Yes / No
5. Correct containers and volume for all analyses indicated..... Yes / No
6. All samples received within method holding time..... Yes / No
7. Correct preservation used for all analyses indicated..... Yes / No
8. Name of sampler included on COC(s)..... Yes / No

Notes:

See temp



Eaton Analytical

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
Phone: 626 386 1100
Fax: 626 386 1101
800 566 LABS (800 566 5227)

LOGIN COMMENTS:

SAMPLES CHECKED AGAINST COC BY: GR

SAMPLE TEMP RECEIVED AT:
 Colton / No. California / Arizona
 Monrovia
°C (Compliance: 4 ± 2 °C)
4.8 °C (Compliance: 4 ± 2 °C)
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: _____

SAMPLES LOGGED IN BY: _____
SAMPLES REC'D DAY OF COLLECTION? (check for yes)

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Honolulu Board of Water Supply
PROJECT No: 38000861
RED HILL
COMPLIANCE SAMPLES NON-COMPLIANCE SAMPLES
- Requires state forms
REGULATION INVOLVED:
Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,)

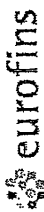
EEA CLIENT CODE: HONOLULU
PO#: C20525101 ex 06312023
SAMPLE GROUP: MW - INTERA Albuquerque +
STD_X_ 1 wk ___ 3 day ___ 2 day ___ 1 day ___
SEE ATTACHED BOTTLE ORDER FOR ANALYSES (check for yes), OR
list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	504_1_PREC - Local Method	2320B-(MOD) total Alk. cond.	200-8-metals	TDS	524_2_Pres_PREC-VOASDWA plus Tics + acetone	525_2_PREC-(MOD) 525plus Plus Tics	300_OF-28D_B-Bromide 4500_F_C-FI	245_1 Local method	524_3_SIM-PREC - low level TCP/EDB/DBCP	504_1_PREC - local method	524_Pres_PREC-VOASDWA plus Tics	524_3_SIM_PREC - low level TCP/EDB/DBCP	Subcontract - 625 Base Neutral LL (EAL) Physis	Subcontract - 625 Base Neutral LL (EAL) Physis	Subcontract - 625 Base Neutral LL (EAL) Physis +TICS	SAMPLER COMMENTS
9/6	1020		BWS2253-J1-AQ	RGW			3	1	1	1	6	2	2	1	3	3	4	2	4	2	2	Order# 14484
			BWS2253-J1-TB	BW																		Provided by EEA
																						380-20077 COC

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

SIGNED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:		Kevin Gooding	INTERA Incorporated / Senior Hydrogeologist	9/6/22	1000
RECEIVED BY:		Kevin Gooding	INTERA Incorporated / Senior Hydrogeologist	9/6/22	1230
RELINQUISHED BY:		Mark Urrutia	EEA	9/7/22	1020
RECEIVED BY:					





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 = 6499A (Observation = 5.1 °C) (Corr. Factor = 0.3 °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 / FedEx / UPS / DHL / Area Fast / Top Line / Other: 2776 6070 4724

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) 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(6251,552), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, international clients:

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

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

RECEIVED BY: <u>Heidi Castro</u>	PRINT NAME: <u>Heidi Castro</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: <u>9/7/22</u>	TIME: <u>10:20</u>
SAMPLES CHECKED AGAINST COC: <u>[Signature]</u>	PRINT NAME: <u>G. PENTER</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: <u>09/07/2022</u>	TIME: <u>16:27</u>



Order Completion Information

Creator: Debbie Frank
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

Order Information

INTERA - Quarterly Site J - up on request
 3753
 Request From Client: 87526922
 Date Order Posted: 8/29/2022 5:57:42 PM
 Order Status: Ready to Process
 Prepared By: Debbie Frank
 Deliver By Date: 9/7/2022 11:59:00 PM
 Lab Project Number: 38000681
 PWSID:

Order #	Quantity	Material	Sample Type	Method	Matrix	Sample Type	Comments	Lot#
3	3	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	604_1_PREC - Local Method	Water	Normal		
1	1	Plastic 250ml - Unpreserved	None	2320B - (MOD) Total Alkalinity SNA-500_HR - Local Method 2510B - Conductivity	Water	Normal		
1	1	Plastic 500ml - with Nitric Acid	Nitric Acid	200.8 - Metals, Priority Pollutant by 200.8 200.7 - (MOD) Custom	Water	Normal		
1	1	Plastic 500ml - unpreserved	None	2540C Calc - Total Dissolved Solids (TDS)	Water	Normal		
1	6	Voa Vial 40ml Amber - Ascorbic Acid & HCL	Ascorbic acid Hydrochloric Acid	524.2_Pres_PREC - VOASDWA plus TICs + Acetone	Water	Normal		
1	2	Amber Glass 1 Liter - Sodium Sulfite/HCl	Sodium Sulfite w/HCl	524.2_SIM_PREC - TBA by 524.2 SIM	Water	Normal		
1	2	Plastic 125ml - unpreserved	None	526.2_PREC (MOD) 525 plus Plus TICs	Water	Normal		
1	1	Plastic 250ml - with Nitric Acid	Nitric Acid	300_OF_280_P - Bromide 4500_F_C - Fluoride	Water	Normal		
1	3	Voa Vial 40ml Amber - Ascorbic & Maleic	Ascorbic Acid/Maleic	300_OF_280_PREC - Chloride and Sulfate 300_OF_48H_PREC - Nitrite, Nitrate, and Nitrite+Nitrate	Water	Normal		
1	3	Voa Vial 40ml Amber - Sodium thiosulfate	Sodium Thiosulfate	245.1 - Local Method	Water	Normal		
1	4	Voa Vial 40ml Amber - Hydrochloric Acid	Hydrochloric Acid	524.3_SIM_PREC - Low Level TICP/EDB/BCP	Water	Normal		
1	4	Voa Vial 40ml Amber - Hydrochloric Acid	Hydrochloric Acid	504.1_PREC - Local Method	Water	Trip Blank		
1	4	Voa Vial 40ml Amber - Hydrochloric Acid	Hydrochloric Acid	524.2_Pres_PREC - VOASDWA plus TICs + Acetone 524.2_SIM_PREC - TBA by 524.2 SIM	Water	Trip Blank		

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

Chain of Custody Record



Client Information (Sub Contract Lab)	Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact:	Phone:	Frank, Debbie L		380-21088.1
Shipping/Receiving	E-Mail:	Debbie.Frank@et.eurolfinsus.com	State of Origin:	Page:
			Hawaii	Page 1 of 1

Company:	Accreditations Required (See note):	Job #:
Eurofins Eaton Analytical	State - Hawaii	380-20077-1

Address:	Due Date Requested:	Analysis Requested	<table border="1"> <tr> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td>A - MCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDA</td> <td>Y - Trizma</td> </tr> <tr> <td></td> <td>Z - other (specify)</td> </tr> </table>	Preservation Codes:		A - MCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDA	Y - Trizma		Z - other (specify)
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110 S Hill Street,	9/27/2022																														

City:	TAT Requested (days):
South Bend	

State, Zip:	PO #:
IN, 46617	

Phone:	WO #:
574-233-4777(Tel) 574-233-8207(Fax)	

Email:	Project #:
	38000861

Project Name:	SSOW#:
INTERA - Red-Hill-Incident	

Site:	Other:
Honolulu BWS Sites	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	MATRIX (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	524.3_SIM_PREC/Low Level TCP/EDB/DBCP	Total Number of Containers	Special Instructions/Note:
BWS2253-J1-AQ (380-20077-1)	9/6/22	10:00 Hawaiian		Water		X		3	
BWS2253-J1-TB (380-20077-2)	9/6/22	10:00 Hawaiian		Water		X		2	

Client provided Sample Container

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

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

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i> G. REITNER	Date/Time: 09/08/2022 9:57	Company: EEA	Received by: <i>[Signature]</i> Date/Time: 9-9-22 0745 Company: EEA
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		0.8 0.8 21 W/025/2022

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-20077-1

Login Number: 20077
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: 380-20077-1

Login Number: 20077
List Number: 2
Creator: Ornelas, Olga

List Source: Eurofins Calscience
List Creation: 09/08/22 06:04 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	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-20077-1

Login Number: 20077
List Number: 3
Creator: Spurgeon, Sheri

List Source: Eurofins Eaton South Bend
List Creation: 09/11/22 12:05 PM

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

