

ANALYTICAL REPORT

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Laboratory Job ID: 380-1106-1
Client Project/Site: RED-HILL

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:
11/6/2022 9:03:52 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
11/6/2022 9:03:52 PM

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Definitions/Glossary

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

Job ID: 380-1106-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.

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.

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
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: RED-HILL

Job ID: 380-1106-1

Job ID: 380-1106-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-1106-1

Comments

No additional comments.

Receipt

The samples were received on 5/4/2022 11:11 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 4.1° C, 4.5° C, 5.2° C and 5.3° C.

GC/MS Semi VOA

Method 525.2: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 380-3642 and analytical batch 380-3927 recovered outside control limits for the following analytes: Butachlor and Chlorobenzilate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 525.2: The method reporting limit check (MRL) for preparation batch 380-3642 and analytical batch 380-3927 recovered outside control limits for the following analytes: Bromacil, Butylbenzylphthalate, Endrin and Pendimethalin (Penoxaline). These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

Method 525.2: The matrix spike (MS) recoveries for preparation batch 380-3642 and analytical batch 380-3927 was outside control limits. Compounds Bromacil, Chlorobenzilate, Endrin aldehyde, Parathion and Terbacil were outside control limits in the MS. Sample matrix interference and/or non-homogeneity is suspected.

Method 525.2: The Method Blank (MB) had hits above the detection limit but below the reporting limit for preparation batch 380-3642 and analytical batch 380-3927. Samples ND for these compounds. Affected analytes: Di(2-ethylhexyl)adipate and Di-n-butyl phthalate.

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 Gas (Purgeable) LL (EAL): These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

No Detections.

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-1106-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
2,4'-DDE	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
2,4'-DDT	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
2,4-Dinitrotoluene	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
2,6-Dinitrotoluene	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
4,4'-DDD	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
4,4'-DDE	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
4,4'-DDT	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Acenaphthene	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Acenaphthylene	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Acetochlor	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Alachlor	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
alpha-BHC	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
alpha-Chlordane	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Anthracene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 15:46	1
Atrazine	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Benz(a)anthracene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Benzo[a]pyrene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 15:46	1
Benzo[b]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 15:46	1
Benzo[g,h,i]perylene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Benzo[k]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 15:46	1
beta-BHC	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Bromacil	ND	^3+	0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Butachlor	ND	*+	0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Butylbenzylphthalate	ND	^3+	0.49	ug/L		05/06/22 09:45	05/10/22 15:46	1
Caffeine	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Chlorobenzilate	ND	*+	0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Chloroneb	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Chlorothalonil (Draconil, Bravo)	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Chlorpyrifos	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Chrysene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 15:46	1
delta-BHC	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 15:46	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 15:46	1
Diazinon (Qualitative)	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Dibenz(a,h)anthracene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Diclorvos (DDVP)	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Dieldrin	ND		0.20	ug/L		05/06/22 09:45	05/10/22 15:46	1
Diethylphthalate	ND		0.49	ug/L		05/06/22 09:45	05/10/22 15:46	1
Dimethoate	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Dimethylphthalate	ND		0.49	ug/L		05/06/22 09:45	05/10/22 15:46	1
Di-n-butyl phthalate	ND		0.98	ug/L		05/06/22 09:45	05/10/22 15:46	1
Di-n-octyl phthalate	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Endosulfan I (Alpha)	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Endosulfan II (Beta)	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Endosulfan sulfate	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Endrin	ND	^3+	0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Endrin aldehyde	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
EPTC	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1

Client Sample Results

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Fluorene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
gamma-Chlordane	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Heptachlor	ND		0.039	ug/L		05/06/22 09:45	05/10/22 15:46	1
Heptachlor epoxide (isomer B)	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Hexachlorobenzene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Hexachlorocyclopentadiene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Indeno[1,2,3-cd]pyrene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Isophorone	ND		0.49	ug/L		05/06/22 09:45	05/10/22 15:46	1
gamma-BHC (Lindane)	ND		0.039	ug/L		05/06/22 09:45	05/10/22 15:46	1
Malathion	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Methoxychlor	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Metolachlor	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Metribuzin	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Molinate	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Naphthalene	ND		0.29	ug/L		05/06/22 09:45	05/10/22 15:46	1
Parathion	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Pendimethalin (Penoxaline)	ND	^3+	0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		05/06/22 09:45	05/10/22 15:46	1
Phenanthrene	ND		0.039	ug/L		05/06/22 09:45	05/10/22 15:46	1
Propachlor	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Pyrene	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Simazine	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Terbacil	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Terbutylazine	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1
Thiobencarb	ND		0.20	ug/L		05/06/22 09:45	05/10/22 15:46	1
trans-Nonachlor	ND		0.049	ug/L		05/06/22 09:45	05/10/22 15:46	1
Trifluralin	ND		0.098	ug/L		05/06/22 09:45	05/10/22 15:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2.5	T J	ug/L		3.01		05/06/22 09:45	05/10/22 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	104		70 - 130	05/06/22 09:45	05/10/22 15:46	1
Triphenylphosphate	104		70 - 130	05/06/22 09:45	05/10/22 15:46	1
Perylene-d12	94		70 - 130	05/06/22 09:45	05/10/22 15:46	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			05/10/22 16:43	1
MOTOR OIL	ND	U	0.052		mg/L			05/10/22 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	95		60 - 130		05/10/22 16:43	1
HEXACOSANE	96		60 - 130		05/10/22 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			05/05/22 19:17	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	96		60 - 140		05/05/22 19:17	1

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-1106-2

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			05/05/22 21:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	85		60 - 140		05/05/22 21:00	1

Action Limit Summary

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

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	RL	Method	Prep Type
				Limit			
Alachlor	ND		ug/L	2	0.049	525.2	Total/NA
Atrazine	ND		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400	0.59	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.59	525.2	Total/NA
Endrin	ND	^3+	ug/L	2	0.098	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.049	525.2	Total/NA
gamma-BHC (Lindane)	ND		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.098	525.2	Total/NA
Simazine	ND		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-1106-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	TPP (70-130)	PRY (70-130)
380-760-E-1-A DU	Duplicate	103	106	93
380-875-B-1-A MS	Matrix Spike	102	107	97
380-1106-1	HALAWA SHAFT VIEWING POOL	104	104	94
LCS 380-3642/3-A	Lab Control Sample	104	103	96
LCSD 380-3642/4-A	Lab Control Sample Dup	103	106	97
MB 380-3642/1-A	Method Blank	102	106	96
MRL 380-3642/2-A	Lab Control Sample	103	107	94

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

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)
380-1106-1	HALAWA SHAFT VIEWING POC	95	96

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	XACOSAI
22DSE013WB	Method Blank		

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)
22DSE013WL	Lab Control Sample	104	102

Surrogate Legend
 BB = BROMOBENZENE
 HEXACOSANE = HEXACOSANE

Surrogate Summary

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

Job ID: 380-1106-1

Method: 8015 Gas (Purgeable) LL (EAL) - 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)
380-1106-1	HALAWA SHAFT VIEWING POC	96
380-1106-2	TRAVEL BLANK	85

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - 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)
22E049-01M	Matrix Spike	113
22E049-01S	Matrix Spike Duplicate	117

Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
22VGH7E02B	Method Blank	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - 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)
22VGH7E02C	LCD	113
22VGH7E02L	Lab Control Sample	109

Surrogate Legend

BFB = BROMOFLUOROBENZENE

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: MB 380-3642/1-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3642

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,6-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acenaphthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acenaphthylene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acetochlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Alachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
alpha-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
alpha-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Anthracene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Atrazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benz(a)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[a]pyrene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[b]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[k]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
beta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Bromacil	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Butachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Butylbenzylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Caffeine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorobenzilate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chloroneb	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorpyrifos	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chrysene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
delta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 11:25	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diazinon (Qualitative)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diclorvos (DDVP)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dieldrin	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dimethoate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dimethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di-n-butyl phthalate	ND		0.99	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di-n-octyl phthalate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan I (Alpha)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan II (Beta)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan sulfate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endrin	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endrin aldehyde	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: MB 380-3642/1-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3642

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Fluoranthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Fluorene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
gamma-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Heptachlor	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Hexachlorobenzene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Isophorone	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
gamma-BHC (Lindane)	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Malathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Methoxychlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Metolachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Metribuzin	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Molinate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Naphthalene	ND		0.30	ug/L		05/06/22 09:45	05/10/22 11:25	1
Parathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
Phenanthrene	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Propachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Simazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Terbacil	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Terbutylazine	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Thiobencarb	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
trans-Nonachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Trifluralin	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Decane</i>	2.00	T J N	ug/L		2.34	124-18-5	05/06/22 09:45	05/10/22 11:25	1
<i>Unknown</i>	0.990	T J	ug/L		3.15		05/06/22 09:45	05/10/22 11:25	1
<i>Unknown</i>	2.04	T J	ug/L		3.63		05/06/22 09:45	05/10/22 11:25	1
<i>Silanimine, N-[2,6-dimethyl-4- [(trimethylsilyl)oxy]phenyl]-1</i>	0.559	T J N	ug/L		3.73	72088-09-6	05/06/22 09:45	05/10/22 11:25	1
<i>Octadecane</i>	0.883	T J N	ug/L		5.09	593-45-3	05/06/22 09:45	05/10/22 11:25	1
<i>n-Hexadecanoic acid</i>	1.86	T J N	ug/L		5.70	57-10-3	05/06/22 09:45	05/10/22 11:25	1
<i>Octadecanoic acid</i>	1.75	T J N	ug/L		6.37	57-11-4	05/06/22 09:45	05/10/22 11:25	1
<i>9-Octadecenamide, (Z)-</i>	0.592	T J N	ug/L		7.29	301-02-0	05/06/22 09:45	05/10/22 11:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	102		70 - 130	05/06/22 09:45	05/10/22 11:25	1
Triphenylphosphate	106		70 - 130	05/06/22 09:45	05/10/22 11:25	1
Perylene-d12	96		70 - 130	05/06/22 09:45	05/10/22 11:25	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: LCS 380-3642/3-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.99	2.01		ug/L		101	70 - 130
2,4'-DDE	1.99	2.05		ug/L		103	70 - 130
2,4'-DDT	1.99	2.10		ug/L		105	70 - 130
2,4-Dinitrotoluene	1.99	2.28		ug/L		114	70 - 130
2,6-Dinitrotoluene	1.99	2.26		ug/L		114	70 - 130
4,4'-DDD	1.99	2.18		ug/L		110	70 - 130
4,4'-DDE	1.99	1.96		ug/L		99	70 - 130
4,4'-DDT	1.99	2.10		ug/L		106	70 - 130
Acenaphthene	1.99	1.98		ug/L		100	70 - 130
Acenaphthylene	1.99	2.06		ug/L		103	70 - 130
Acetochlor	1.99	2.27		ug/L		114	70 - 130
Alachlor	1.99	2.23		ug/L		112	70 - 130
alpha-BHC	1.99	2.14		ug/L		108	70 - 130
alpha-Chlordane	1.99	1.93		ug/L		97	70 - 130
Anthracene	1.99	2.01		ug/L		101	70 - 130
Atrazine	1.99	2.09		ug/L		105	70 - 130
Benz(a)anthracene	1.99	2.12		ug/L		107	70 - 130
Benzo[a]pyrene	1.99	2.12		ug/L		107	70 - 130
Benzo[b]fluoranthene	1.99	2.18		ug/L		110	70 - 130
Benzo[g,h,i]perylene	1.99	2.16		ug/L		109	70 - 130
Benzo[k]fluoranthene	1.99	2.01		ug/L		101	70 - 130
beta-BHC	1.99	2.05		ug/L		103	70 - 130
Bromacil	1.99	2.40		ug/L		121	70 - 130
Butachlor	1.99	2.47		ug/L		124	70 - 130
Butylbenzylphthalate	1.99	2.26		ug/L		114	70 - 130
Caffeine	1.99	2.00		ug/L		101	70 - 130
Chlorobenzilate	1.99	2.68	*+	ug/L		135	70 - 130
Chloroneb	1.99	2.10		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.02		ug/L		102	70 - 130
Chlorpyrifos	1.99	2.12		ug/L		107	70 - 130
Chrysene	1.99	2.05		ug/L		103	70 - 130
delta-BHC	1.99	2.05		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.28		ug/L		115	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.02		ug/L		101	70 - 130
Diazinon (Qualitative)	1.99	2.12		ug/L		107	70 - 130
Dibenz(a,h)anthracene	1.99	2.16		ug/L		109	70 - 130
Diclorvos (DDVP)	1.99	2.38		ug/L		120	70 - 130
Dieldrin	1.99	2.09		ug/L		105	70 - 130
Diethylphthalate	1.99	2.18		ug/L		110	70 - 130
Dimethoate	1.99	2.17		ug/L		109	70 - 130
Dimethylphthalate	1.99	2.19		ug/L		110	70 - 130
Di-n-butyl phthalate	3.98	4.11		ug/L		103	70 - 130
Di-n-octyl phthalate	1.99	2.06		ug/L		104	70 - 130
Endosulfan I (Alpha)	1.99	2.09		ug/L		105	70 - 130
Endosulfan II (Beta)	1.99	2.11		ug/L		106	70 - 130
Endosulfan sulfate	1.99	2.15		ug/L		108	70 - 130
Endrin	1.99	2.42		ug/L		122	70 - 130
Endrin aldehyde	1.99	2.02		ug/L		101	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: LCS 380-3642/3-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
EPTC	1.99	2.22		ug/L		111	70 - 130
Fluoranthene	1.99	2.11		ug/L		106	70 - 130
Fluorene	1.99	2.13		ug/L		107	70 - 130
gamma-Chlordane	1.99	2.01		ug/L		101	70 - 130
Heptachlor	1.99	2.17		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.03		ug/L		102	70 - 130
Hexachlorobenzene	1.99	1.92		ug/L		97	70 - 130
Hexachlorocyclopentadiene	1.99	2.32		ug/L		117	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.21		ug/L		111	70 - 130
Isophorone	1.99	2.24		ug/L		113	70 - 130
gamma-BHC (Lindane)	1.99	2.10		ug/L		106	70 - 130
Malathion	1.99	2.29		ug/L		115	70 - 130
Methoxychlor	1.99	2.27		ug/L		114	70 - 130
Metolachlor	1.99	2.29		ug/L		115	70 - 130
Metribuzin	1.99	2.36		ug/L		119	70 - 130
Molinate	1.99	2.25		ug/L		113	70 - 130
Naphthalene	1.99	2.06		ug/L		103	70 - 130
Parathion	1.99	2.35		ug/L		118	70 - 130
Pendimethalin (Penoxaline)	1.99	2.11		ug/L		106	70 - 130
Phenanthrene	1.99	1.99		ug/L		100	70 - 130
Propachlor	1.99	2.42		ug/L		121	70 - 130
Pyrene	1.99	2.15		ug/L		108	70 - 130
Simazine	1.99	2.36		ug/L		119	70 - 130
Terbacil	1.99	2.36		ug/L		118	70 - 130
Terbutylazine	1.99	2.23		ug/L		112	70 - 130
Thiobencarb	1.99	2.29		ug/L		115	70 - 130
trans-Nonachlor	1.99	1.98		ug/L		100	70 - 130
Trifluralin	1.99	2.06		ug/L		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	104		70 - 130
Triphenylphosphate	103		70 - 130
Perylene-d12	96		70 - 130

Lab Sample ID: LCSD 380-3642/4-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.98	2.08		ug/L		105	70 - 130	3	20
2,4'-DDE	1.98	2.06		ug/L		104	70 - 130	0	20
2,4'-DDT	1.98	2.16		ug/L		109	70 - 130	3	20
2,4-Dinitrotoluene	1.98	2.42		ug/L		122	70 - 130	6	20
2,6-Dinitrotoluene	1.98	2.39		ug/L		120	70 - 130	6	20
4,4'-DDD	1.98	2.30		ug/L		116	70 - 130	5	20
4,4'-DDE	1.98	2.07		ug/L		104	70 - 130	5	20
4,4'-DDT	1.98	2.20		ug/L		111	70 - 130	4	20
Acenaphthene	1.98	2.03		ug/L		103	70 - 130	2	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: LCSD 380-3642/4-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthylene	1.98	2.09		ug/L		106	70 - 130	2	20
Acetochlor	1.98	2.36		ug/L		119	70 - 130	4	20
Alachlor	1.98	2.33		ug/L		118	70 - 130	4	20
alpha-BHC	1.98	2.20		ug/L		111	70 - 130	3	20
alpha-Chlordane	1.98	1.97		ug/L		99	70 - 130	2	20
Anthracene	1.98	2.12		ug/L		107	70 - 130	5	20
Atrazine	1.98	2.20		ug/L		111	70 - 130	5	20
Benz(a)anthracene	1.98	2.29		ug/L		115	70 - 130	8	20
Benzo[a]pyrene	1.98	2.24		ug/L		113	70 - 130	5	20
Benzo[b]fluoranthene	1.98	2.22		ug/L		112	70 - 130	2	20
Benzo[g,h,i]perylene	1.98	2.06		ug/L		104	70 - 130	5	20
Benzo[k]fluoranthene	1.98	2.17		ug/L		110	70 - 130	8	20
beta-BHC	1.98	2.14		ug/L		108	70 - 130	5	20
Bromacil	1.98	2.50		ug/L		126	70 - 130	4	20
Butachlor	1.98	2.59	*+	ug/L		131	70 - 130	5	20
Butylbenzylphthalate	1.98	2.39		ug/L		121	70 - 130	6	20
Caffeine	1.98	2.21		ug/L		112	70 - 130	10	20
Chlorobenzilate	1.98	2.83	*+	ug/L		143	70 - 130	5	20
Chloroneb	1.98	2.14		ug/L		108	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)	1.98	2.14		ug/L		108	70 - 130	5	20
Chlorpyrifos	1.98	2.22		ug/L		112	70 - 130	5	20
Chrysene	1.98	2.10		ug/L		106	70 - 130	3	20
delta-BHC	1.98	2.12		ug/L		107	70 - 130	3	20
Di(2-ethylhexyl)adipate	1.98	2.35		ug/L		119	70 - 130	3	20
Bis(2-ethylhexyl) phthalate	1.98	2.10		ug/L		106	70 - 130	4	20
Diazinon (Qualitative)	1.98	2.18		ug/L		110	70 - 130	2	20
Dibenz(a,h)anthracene	1.98	2.18		ug/L		110	70 - 130	1	20
Diclorvos (DDVP)	1.98	2.49		ug/L		126	70 - 130	5	20
Dieldrin	1.98	2.13		ug/L		107	70 - 130	2	20
Diethylphthalate	1.98	2.27		ug/L		115	70 - 130	4	20
Dimethoate	1.98	2.22		ug/L		112	70 - 130	2	20
Dimethylphthalate	1.98	2.26		ug/L		114	70 - 130	3	20
Di-n-butyl phthalate	3.96	4.20		ug/L		106	70 - 130	2	20
Di-n-octyl phthalate	1.98	2.08		ug/L		105	70 - 130	1	20
Endosulfan I (Alpha)	1.98	2.17		ug/L		109	70 - 130	3	20
Endosulfan II (Beta)	1.98	2.24		ug/L		113	70 - 130	6	20
Endosulfan sulfate	1.98	2.28		ug/L		115	70 - 130	6	20
Endrin	1.98	2.58		ug/L		130	70 - 130	7	20
Endrin aldehyde	1.98	2.12		ug/L		107	70 - 130	5	20
EPTC	1.98	2.31		ug/L		116	70 - 130	4	20
Fluoranthene	1.98	2.22		ug/L		112	70 - 130	5	20
Fluorene	1.98	2.22		ug/L		112	70 - 130	4	20
gamma-Chlordane	1.98	2.03		ug/L		103	70 - 130	1	20
Heptachlor	1.98	2.26		ug/L		114	70 - 130	4	20
Heptachlor epoxide (isomer B)	1.98	2.14		ug/L		108	70 - 130	5	20
Hexachlorobenzene	1.98	1.97		ug/L		99	70 - 130	2	20
Hexachlorocyclopentadiene	1.98	2.44		ug/L		123	70 - 130	5	20
Indeno[1,2,3-cd]pyrene	1.98	2.17		ug/L		110	70 - 130	2	20
Isophorone	1.98	2.32		ug/L		117	70 - 130	4	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: LCSD 380-3642/4-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
gamma-BHC (Lindane)	1.98	2.19		ug/L		111	70 - 130	4	20
Malathion	1.98	2.38		ug/L		120	70 - 130	4	20
Methoxychlor	1.98	2.46		ug/L		124	70 - 130	8	20
Metolachlor	1.98	2.41		ug/L		122	70 - 130	5	20
Metribuzin	1.98	2.32		ug/L		117	70 - 130	2	20
Molinate	1.98	2.31		ug/L		117	70 - 130	3	20
Naphthalene	1.98	2.07		ug/L		104	70 - 130	0	20
Parathion	1.98	2.45		ug/L		124	70 - 130	4	20
Pendimethalin (Penoxaline)	1.98	2.29		ug/L		115	70 - 130	8	20
Phenanthrene	1.98	2.04		ug/L		103	70 - 130	2	20
Propachlor	1.98	2.50		ug/L		126	70 - 130	3	20
Pyrene	1.98	2.23		ug/L		113	70 - 130	4	20
Simazine	1.98	2.52		ug/L		127	70 - 130	7	20
Terbacil	1.98	2.54		ug/L		128	70 - 130	7	20
Terbutylazine	1.98	2.43		ug/L		123	70 - 130	8	20
Thiobencarb	1.98	2.37		ug/L		120	70 - 130	3	20
trans-Nonachlor	1.98	2.06		ug/L		104	70 - 130	4	20
Trifluralin	1.98	2.14		ug/L		108	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	97		70 - 130

Lab Sample ID: MRL 380-3642/2-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0996	0.129		ug/L		130	50 - 150
2,4'-DDE	0.0996	0.102		ug/L		103	50 - 150
2,4'-DDT	0.0996	0.127		ug/L		128	50 - 150
2,4-Dinitrotoluene	0.0996	0.132		ug/L		133	50 - 150
2,6-Dinitrotoluene	0.0996	0.104		ug/L		104	50 - 150
4,4'-DDD	0.0996	0.112		ug/L		113	50 - 150
4,4'-DDE	0.0996	ND		ug/L		96	50 - 150
4,4'-DDT	0.0996	0.124		ug/L		124	50 - 150
Acenaphthene	0.0996	ND		ug/L		100	50 - 150
Acenaphthylene	0.0996	ND		ug/L		91	50 - 150
Acetochlor	0.0498	ND		ug/L		104	50 - 150
Alachlor	0.0498	0.0586		ug/L		118	50 - 150
alpha-BHC	0.0996	0.118		ug/L		118	50 - 150
alpha-Chlordane	0.0498	0.0514		ug/L		103	50 - 150
Anthracene	0.0199	ND		ug/L		97	50 - 150
Atrazine	0.0498	ND		ug/L		96	50 - 150
Benz(a)anthracene	0.0498	0.0528		ug/L		106	50 - 150
Benzo[a]pyrene	0.0199	0.0218		ug/L		110	50 - 150
Benzo[b]fluoranthene	0.0199	0.0216		ug/L		108	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: MRL 380-3642/2-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	0.0498	ND		ug/L		82	50 - 150
Benzo[k]fluoranthene	0.0199	0.0216		ug/L		109	50 - 150
beta-BHC	0.0996	0.107		ug/L		108	50 - 150
Bromacil	0.0996	0.160	^3+	ug/L		161	50 - 150
Butachlor	0.0498	0.0722		ug/L		145	50 - 150
Butylbenzylphthalate	0.149	ND	^3+	ug/L		151	50 - 150
Caffeine	0.0498	ND		ug/L		99	50 - 150
Chlorobenzilate	0.0996	0.137		ug/L		138	50 - 150
Chloroneb	0.0996	0.106		ug/L		106	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0996	0.132		ug/L		133	50 - 150
Chlorpyrifos	0.0498	0.0551		ug/L		111	50 - 150
Chrysene	0.0199	0.0212		ug/L		107	50 - 150
delta-BHC	0.0996	0.134		ug/L		135	50 - 150
Di(2-ethylhexyl)adipate	0.299	ND		ug/L		126	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.671		ug/L		112	50 - 150
Diazinon (Qualitative)	0.0996	0.110		ug/L		111	50 - 150
Dibenz(a,h)anthracene	0.0498	ND		ug/L		80	50 - 150
Diclorvos (DDVP)	0.0498	0.0589		ug/L		118	50 - 150
Dieldrin	0.0996	ND		ug/L		112	50 - 150
Diethylphthalate	0.149	ND		ug/L		130	50 - 150
Dimethoate	0.0996	0.148		ug/L		149	50 - 150
Dimethylphthalate	0.299	ND		ug/L		104	50 - 150
Di-n-butyl phthalate	0.299	ND		ug/L		137	50 - 150
Di-n-octyl phthalate	0.0996	0.123		ug/L		124	50 - 150
Endosulfan I (Alpha)	0.0996	0.115		ug/L		116	50 - 150
Endosulfan II (Beta)	0.0996	0.135		ug/L		136	50 - 150
Endosulfan sulfate	0.0996	0.100		ug/L		100	50 - 150
Endrin	0.0996	0.155	^3+	ug/L		156	50 - 150
Endrin aldehyde	0.0996	ND		ug/L		87	50 - 150
EPTC	0.0996	0.106		ug/L		106	50 - 150
Fluoranthene	0.0498	ND		ug/L		107	50 - 150
Fluorene	0.0498	0.0519		ug/L		104	50 - 150
gamma-Chlordane	0.0498	ND		ug/L		96	50 - 150
Heptachlor	0.0398	0.0581		ug/L		146	50 - 150
Heptachlor epoxide (isomer B)	0.0498	ND		ug/L		98	50 - 150
Hexachlorobenzene	0.0498	0.0574		ug/L		115	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0545		ug/L		109	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	ND		ug/L		81	50 - 150
Isophorone	0.0996	ND		ug/L		104	50 - 150
gamma-BHC (Lindane)	0.0498	0.0459		ug/L		92	50 - 150
Malathion	0.0996	0.110		ug/L		111	50 - 150
Methoxychlor	0.0996	0.108		ug/L		108	50 - 150
Metolachlor	0.0498	0.0568		ug/L		114	50 - 150
Metribuzin	0.0498	0.0568		ug/L		114	50 - 150
Molinate	0.0996	0.117		ug/L		117	50 - 150
Naphthalene	0.0996	ND		ug/L		105	50 - 150
Parathion	0.0996	0.138		ug/L		139	50 - 150
Pendimethalin (Penoxaline)	0.0996	0.153	^3+	ug/L		154	50 - 150
Phenanthrene	0.0199	ND		ug/L		112	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: MRL 380-3642/2-A
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Propachlor	0.0498	0.0614		ug/L		123	50 - 150
Pyrene	0.0498	0.0536		ug/L		108	50 - 150
Simazine	0.0498	0.0606		ug/L		122	50 - 150
Terbacil	0.0996	0.118		ug/L		118	50 - 150
Terbutylazine	0.0996	0.107		ug/L		108	50 - 150
Thiobencarb	0.0996	ND		ug/L		126	50 - 150
trans-Nonachlor	0.0498	ND		ug/L		94	50 - 150
Trifluralin	0.0996	0.128		ug/L		129	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	107		70 - 130
Perylene-d12	94		70 - 130

Lab Sample ID: 380-875-B-1-A MS
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		1.96	2.01		ug/L		103	70 - 130
2,4'-DDE	ND		1.96	1.99		ug/L		102	70 - 130
2,4'-DDT	ND		1.96	2.05		ug/L		105	70 - 130
2,4-Dinitrotoluene	ND		1.96	2.48		ug/L		127	70 - 130
2,6-Dinitrotoluene	ND		1.96	2.40		ug/L		123	70 - 130
4,4'-DDD	ND		1.96	2.21		ug/L		113	70 - 130
4,4'-DDE	ND		1.96	1.91		ug/L		98	70 - 130
4,4'-DDT	ND		1.96	2.11		ug/L		108	70 - 130
Acenaphthene	ND		1.96	1.95		ug/L		100	70 - 130
Acenaphthylene	ND		1.96	2.13		ug/L		109	70 - 130
Acetochlor	ND		1.96	2.38		ug/L		122	70 - 130
Alachlor	ND		1.96	2.36		ug/L		120	70 - 130
alpha-BHC	ND		1.96	2.16		ug/L		110	70 - 130
alpha-Chlordane	ND		1.96	1.89		ug/L		96	70 - 130
Anthracene	ND		1.96	2.00		ug/L		102	70 - 130
Atrazine	ND		1.96	2.00		ug/L		102	70 - 130
Benz(a)anthracene	ND		1.96	2.25		ug/L		115	70 - 130
Benzo[a]pyrene	ND		1.96	2.20		ug/L		112	70 - 130
Benzo[b]fluoranthene	ND		1.96	2.16		ug/L		110	70 - 130
Benzo[g,h,i]perylene	ND		1.96	2.08		ug/L		106	70 - 130
Benzo[k]fluoranthene	ND		1.96	2.14		ug/L		109	70 - 130
beta-BHC	ND		1.96	2.09		ug/L		107	70 - 130
Bromacil	ND	F1	1.96	2.64	F1	ug/L		135	70 - 130
Butachlor	ND	*+	1.96	2.54		ug/L		130	70 - 130
Butylbenzylphthalate	ND		1.96	2.37		ug/L		121	70 - 130
Caffeine	ND		1.96	2.18		ug/L		111	70 - 130
Chlorobenzilate	ND	*+ F1	1.96	2.84	F1	ug/L		145	70 - 130
Chloroneb	ND		1.96	2.09		ug/L		107	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.96	2.05		ug/L		105	70 - 130

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: 380-875-B-1-A MS

Matrix: Water

Analysis Batch: 3927

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3642

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorpyrifos	ND		1.96	2.17		ug/L		111	70 - 130
Chrysene	ND		1.96	2.06		ug/L		105	70 - 130
delta-BHC	ND		1.96	2.06		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	ND		1.96	2.03		ug/L		104	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.96	1.79		ug/L		92	70 - 130
Diazinon (Qualitative)	ND		1.96	2.17		ug/L		111	70 - 130
Dibenz(a,h)anthracene	ND		1.96	2.13		ug/L		109	70 - 130
Diclorvos (DDVP)	ND		1.96	2.42		ug/L		124	70 - 130
Dieldrin	ND		1.96	2.07		ug/L		106	70 - 130
Diethylphthalate	ND		1.96	2.23		ug/L		114	70 - 130
Dimethoate	ND		1.96	2.43		ug/L		124	70 - 130
Dimethylphthalate	ND		1.96	2.22		ug/L		113	70 - 130
Di-n-butyl phthalate	ND		3.91	4.64		ug/L		109	70 - 130
Di-n-octyl phthalate	ND		1.96	1.64		ug/L		84	70 - 130
Endosulfan I (Alpha)	ND		1.96	2.17		ug/L		111	70 - 130
Endosulfan II (Beta)	ND		1.96	2.31		ug/L		118	70 - 130
Endosulfan sulfate	ND		1.96	2.24		ug/L		114	70 - 130
Endrin	ND		1.96	2.34		ug/L		120	70 - 130
Endrin aldehyde	ND	F1	1.96	0.708	F1	ug/L		36	70 - 130
EPTC	ND		1.96	2.21		ug/L		113	70 - 130
Fluoranthene	ND		1.96	2.17		ug/L		111	70 - 130
Fluorene	ND		1.96	2.13		ug/L		109	70 - 130
gamma-Chlordane	ND		1.96	1.93		ug/L		98	70 - 130
Heptachlor	ND		1.96	2.25		ug/L		115	70 - 130
Heptachlor epoxide (isomer B)	ND		1.96	2.04		ug/L		104	70 - 130
Hexachlorobenzene	ND		1.96	1.95		ug/L		100	70 - 130
Hexachlorocyclopentadiene	ND		1.96	2.37		ug/L		121	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.96	2.14		ug/L		109	70 - 130
Isophorone	ND		1.96	2.25		ug/L		115	70 - 130
gamma-BHC (Lindane)	ND		1.96	2.12		ug/L		108	70 - 130
Malathion	ND		1.96	2.41		ug/L		123	70 - 130
Methoxychlor	ND		1.96	2.50		ug/L		128	70 - 130
Metolachlor	ND		1.96	2.52		ug/L		129	70 - 130
Metribuzin	ND		1.96	2.06		ug/L		105	70 - 130
Molinate	ND		1.96	2.33		ug/L		119	70 - 130
Naphthalene	ND		1.96	2.01		ug/L		103	70 - 130
Parathion	ND	F1	1.96	2.71	F1	ug/L		138	70 - 130
Pendimethalin (Penoxaline)	ND		1.96	2.36		ug/L		121	70 - 130
Phenanthrene	ND		1.96	2.01		ug/L		103	70 - 130
Propachlor	ND		1.96	2.47		ug/L		126	70 - 130
Pyrene	ND		1.96	2.24		ug/L		114	70 - 130
Simazine	ND		1.96	2.32		ug/L		119	70 - 130
Terbacil	ND	F1	1.96	2.56	F1	ug/L		131	70 - 130
Terbutylazine	ND		1.96	2.30		ug/L		118	70 - 130
Thiobencarb	ND		1.96	2.33		ug/L		119	70 - 130
trans-Nonachlor	ND		1.96	1.86		ug/L		95	70 - 130
Trifluralin	ND		1.96	2.22		ug/L		114	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: 380-875-B-1-A MS
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3642

Surrogate	%Recovery	MS MS Qualifier	Limits
2-Nitro-m-xylene	102		70 - 130
Triphenylphosphate	107		70 - 130
Perylene-d12	97		70 - 130

Lab Sample ID: 380-760-E-1-A DU
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 3642

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
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
Atrazine	ND		ND		ug/L		NC	20
Benz(a)anthracene	ND		ND		ug/L		NC	20
Benzo[a]pyrene	ND		ND		ug/L		NC	20
Benzo[b]fluoranthene	ND		ND		ug/L		NC	20
Benzo[g,h,i]perylene	ND		ND		ug/L		NC	20
Benzo[k]fluoranthene	ND		ND		ug/L		NC	20
beta-BHC	ND		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		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

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: 380-760-E-1-A DU
Matrix: Water
Analysis Batch: 3927

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 3642

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

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	93		70 - 130

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: 22DSE013WB
Matrix: WATER
Analysis Batch: 22DSE013W

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
DIESEL	ND	U	0.025		mg/L			05/10/22 15:29	1
MOTOR OIL	ND	U	0.05		mg/L			05/10/22 15:29	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
BROMOBENZENE							05/10/22 15:29	1	
HEXACOSANE							05/10/22 15:29	1	

Lab Sample ID: 22DSE013WL
Matrix: WATER
Analysis Batch: 22DSE013W

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
DIESEL	2.5	2.45		mg/L		98	50 - 130
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
BROMOBENZENE	104		60 - 130				
HEXACOSANE	102		60 - 130				

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

Lab Sample ID: 22VGH7E02B
Matrix: WATER
Analysis Batch: 22VGH7E02

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
GASOLINE	ND	U	0.02		mg/L			05/05/22 12:15	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
BROMOFLUOROBENZENE							05/05/22 12:15	1	

Lab Sample ID: 22VGH7E02L
Matrix: WATER
Analysis Batch: 22VGH7E02

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
GASOLINE	0.5	0.436		mg/L		87	60 - 130
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
BROMOFLUOROBENZENE	109		70 - 130				

Lab Sample ID: 22E049-01M
Matrix: WATER
Analysis Batch: 22VGH7E02

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
GASOLINE	ND		0.5	0.45		mg/L		90	50 - 130

QC Sample Results

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

Job ID: 380-1106-1

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

Lab Sample ID: 22E049-01M
Matrix: WATER
Analysis Batch: 22VGH7E02

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

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
<i>BROMOFLUOROBENZENE</i>	113		60 - 140

Lab Sample ID: 22E049-01S
Matrix: WATER
Analysis Batch: 22VGH7E02

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

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
GASOLINE	ND		0.5	0.467		mg/L		93	50 - 130	4	30

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>BROMOFLUOROBENZENE</i>	117		60 - 140

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QC Association Summary

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

Job ID: 380-1106-1

GC/MS Semi VOA

Prep Batch: 3642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1106-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-3642/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-3642/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-3642/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-3642/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-875-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-760-E-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 3927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1106-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	3642
MB 380-3642/1-A	Method Blank	Total/NA	Water	525.2	3642
LCS 380-3642/3-A	Lab Control Sample	Total/NA	Water	525.2	3642
LCSD 380-3642/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	3642
MRL 380-3642/2-A	Lab Control Sample	Total/NA	Water	525.2	3642
380-875-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	3642
380-760-E-1-A DU	Duplicate	Total/NA	Water	525.2	3642

Subcontract

Analysis Batch: 22DSE013W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1106-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015 Diesel LL (EAL) and Motor Oil	
22DSE013WB	Method Blank	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22DSE013WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	

Analysis Batch: 22VGH7E02

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1106-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-1106-2	TRAVEL BLANK	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
22VGH7E02B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7E02L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22E049-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22E049-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Eurofins Eaton Monrovia

Lab Chronicle

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

Job ID: 380-1106-1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-1106-1

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			3642	OTM3	EA MON	05/06/22 09:45
Total/NA	Analysis	525.2		1	3927	UPAC	EA MON	05/10/22 15:46
Total/NA	Analysis	8015 Diesel LL (EAL) and Motor Oil		1	22DSE013W	SDees		05/10/22 16:43
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7E02	SCerva		05/05/22 19:17

Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-1106-2

Date Collected: 05/02/22 09:30

Matrix: Water

Date Received: 05/04/22 11:11

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	22VGH7E02	SCerva		05/05/22 21:00

Laboratory References:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505

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

Accreditation/Certification Summary

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

Job ID: 380-1106-1

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

Accreditation/Certification Summary

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

Job ID: 380-1106-1

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

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Molinate
525.2	525.2	Water	Naphthalene
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Phenanthrene
525.2	525.2	Water	Pyrene
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Thiobencarb
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor
525.2	525.2	Water	Trifluralin

Method Summary

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

Job ID: 380-1106-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	
525.2	Extraction of Semivolatile Compounds	EPA	EA MON

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505

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

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Sample Summary

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

Job ID: 380-1106-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-1106-1	HALAWA SHAFT VIEWING POOL	Water	05/02/22 09:30	05/04/22 11:11
380-1106-2	TRAVEL BLANK	Water	05/02/22 09:30	05/04/22 11:11

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

Date: 10-26-2022
EMAX Batch No.: 22E049

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-1106

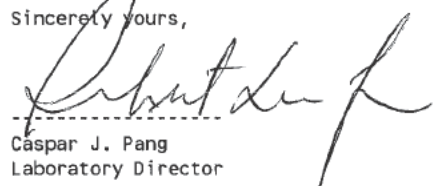
Enclosed is the Laboratory report for samples received on 05/05/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-1106-1	E049-01	05/02/22	WATER	TPH GASOLINE TPH
380-1106-2	E049-02	05/02/22	WATER	TPH GASOLINE
380-1106-1MS	E049-01M	05/02/22	WATER	TPH GASOLINE
380-1106-1MSD	E049-01S	05/02/22	WATER	TPH GASOLINE

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



REFERENCE: EMAX-SM02 Rev. 12
SAMPLE RECEIPT FORM 1

Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input checked="" type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>22E049</u> Recipient <u>Alon Ramos</u> Date <u>05/05/22</u> Time <u>10:54</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 checked="" 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)		<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required	

Note: _____

PACKAGING INSPECTION

Container	<input type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, 56 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>5.7/5.9 °C</u>	<input checked="" type="checkbox"/> Cooler 2 <u>4.9/5.1 °C</u>	<input checked="" type="checkbox"/> Cooler 3 <u>4.7/4.9 °C</u>
Thermometer:	<input checked="" type="checkbox"/> Cooler 4 <u>5.7/5.9 °C</u>	<input type="checkbox"/> Cooler 5 _____ °C	<input type="checkbox"/> Cooler 6 _____ °C
	<input checked="" type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C	<input type="checkbox"/> Cooler 9 _____ °C
	<input checked="" type="checkbox"/> Cooler 10 _____ °C		

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1,3,5	1-9,12-20,27-29,32,33	D10		
1,3,5,7	5,7-9,15,16,17,19,20 26,30,31,34,40,42,44,45	D2	JET FUEL 5 is also listed on label, not indicated on COC	R8
2,4,6	11,21,22,35,36	D7	two dates on label - 2/2/22 and 5/2/22	R8
7	37,39-45	D10		

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? YES NO

COC states Diesel U + Motor Oil only

- 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 |
| <input checked="" type="checkbox"/> 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 |
| <input checked="" type="checkbox"/> 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 <i>Informed Client</i> |
| D9 Sample received is not listed in COC | D21 No sample for moisture determination | R9 _____ |
| <input checked="" type="checkbox"/> 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 _____ |

REVIEWS:

Sample Labeling Joeyne SRF Joeyne PM AB
 Date 05/05/22 Date 5/5/22 Date 5/5/22

EMAX Laboratories, Inc. 3051 Fujita St., Torrance, CA 90505

Shipping Order Form



Environment Testing
America



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

Shipping Order ID: 3574

Ship Via: **FedEx**

Due On: 5/5/2022 11:59:00PM

Project Manager:

Company Name: *EMAX Laboratories Inc*

Attention: *Shipping/Receiving*

Address 1: *3051 Fujita Street*

Address 2:

Address 3:

City: *Torrance*

State: *CA*

Zip: *90505*

Phone #:

Project Ref:

Shipping Method: **Standard packing**

- Ready to Fill
- Preprinted COC
- Number of COC Copies
- Seals on Bottle
- Seals on Coolers
- Priority
- Return Shipment Labels
- Prepaid Return
- Monrovia, CA (Suite 100)
- Short Hold Times
- Temperature Control
- Rush

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

Shipping Order ID: 3574

Page 1 of 3

Printed on 5/5/2022 8:05:10AM

REPORT ID: 22E049

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

Printed on 5/5/2022 8:05:10AM

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Shipping Order ID: 3574

REPORT ID: 22E049

Bottle Order:
Bottle Order #:
Request From Client: 5/5/2022
Date Order Posted: Ready To Process
Order Status:
Prepared By:
Deliver By Date: 5/5/2022 11:59:00PM
Lab Project Number:
PWSID:

Creator: Joseph Sanchez
Filled by:
Sent Date:
Sent Via:
Tracking #:



Scan QR code for field sampler instructions

Preservative _____ Comment _____

Relinquished By	Company	Date	Time	Received By	Company	Seat #:
Relinquished By	Company	Date	Time	Received By	Company	Seat #:

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

Shipping Order ID: 3574

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Printed on 5/5/2022 8:05:10AM

REPORT ID: 22E049

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ICOC No:
380-474

Containers

<u>Count</u>	<u>Container Type</u>
6	Amber Glass 1 liter - Sodium Thiosulfate
2	Voa Vial 40ml - with Sodium Thiosulfate
3	Voa Vial 40ml Amber - Sodium thiosulfate

<u>Preservative</u>
Sodium Thiosulfate
Sodium Thiosulfate
Sodium Thiosulfate

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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

380-1106

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

SDG#: 22E049

- 1
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- 14
- 15
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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-1106

SDG : 22E049

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

A total of two(2) water samples were received on 05/05/22 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. VGH7E02B - 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. VGH7E02L/VGH7E02C 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 E049-01M/E049-01S. 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 : 380-1106
SDG NO. : 22E049
Instrument ID : H7
=====

```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VGH7E02B	1	NA	05/05/2212:15	05/05/2212:15	AE05005A	AE05004A	22VGH7E02	Method Blank
LCS1W	VGH7E02L	1	NA	05/05/2212:50	05/05/2212:50	AE05006A	AE05004A	22VGH7E02	Lab Control Sample (LCS)
LCD1W	VGH7E02C	1	NA	05/05/2213:24	05/05/2213:24	AE05007A	AE05004A	22VGH7E02	LCS Duplicate
380-1106-1	E049-01	1	NA	05/05/2219:17	05/05/2219:17	AE05017A	AE05016A	22VGH7E02	Field Sample
380-1106-1MS	E049-01M	1	NA	05/05/2219:51	05/05/2219:51	AE05018A	AE05016A	22VGH7E02	Matrix Spike Sample (MS)
380-1106-1MSD	E049-01S	1	NA	05/05/2220:25	05/05/2220:25	AE05019A	AE05016A	22VGH7E02	MS Duplicate (MSD)
380-1106-2	E049-02	1	NA	05/05/2221:00	05/05/2221:00	AE05020A	AE05016A	22VGH7E02	Field Sample

```

FN - Filename
% Moist - Percent Moisture

```

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 09:30
Project     : 380-1106                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 19:17
Sample ID   : 380-1106-1                 Date Analyzed: 05/05/22 19:17
Lab Samp ID: E049-01                     Dilution Factor: 1
Lab File ID: AE05017A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

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	0.0386	0.0400	96	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: 05/05/22 12:15
Project    : 380-1106                    Date Received: 05/05/22
Batch No.  : 22E049                      Date Extracted: 05/05/22 12:15
Sample ID  : MBLK1W                      Date Analyzed: 05/05/22 12:15
Lab Samp ID: VGH7E02B                   Dilution Factor: 1
Lab File ID: AE05005A                   Matrix: WATER
Ext Btch ID: 22VGH7E02                  % Moisture: NA
Calib. Ref.: AE05004A                   Instrument ID: H7
=====

```

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	0.0362	0.0400	90	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 : 380-1106
BATCH NO. : 22E049
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W       LCD1W
LAB SAMPLE ID : VGH7E02B                         VGH7E02L   VGH7E02C
LAB FILE ID  : AE05005A                         AE05006A   AE05007A
DATE PREPARED : 05/05/22 12:15                 05/05/22 12:50 05/05/22 13:24
DATE ANALYZED : 05/05/22 12:15                 05/05/22 12:50 05/05/22 13:24
PREP BATCH   : 22VGH7E02                         22VGH7E02  22VGH7E02
CALIBRATION REF: AE05004A                       AE05004A   AE05004A
  
```

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	0.436	87	0.500	0.452	90	4	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0437	109	0.0400	0.0451	113	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 : 380-1106
BATCH NO. : 22E049
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-1106-1                         380-1106-1MS
LAB SAMPLE ID : E049-01                          E049-01S
LAB FILE ID  : AE05017A                          AE05018A
DATE PREPARED : 05/05/22 19:17                   05/05/22 20:25
DATE ANALYZED : 05/05/22 19:17                   05/05/22 20:25
PREP BATCH   : 22VGH7E02                          22VGH7E02
CALIBRATION REF: AE05016A                         AE05016A
    
```

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	0.450	90	0.500	0.467	93	4	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0450	113	0.0400	0.0467	117	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-1106

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22E049

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-1106

SDG : 22E049

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 05/05/22 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. DSE013WB - 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 DSE013WL. 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 22E049-05M/22E049-05S. 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
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-1106
SDG NO. : 22E049
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
MBLK1W	DSE013WB	1	NA	05/10/2215:29	05/09/2211:30	LE10010A	LE10004A	22DSE013W	Method Blank
LCS1W	DSE013WL	1	NA	05/10/2215:48	05/09/2211:30	LE10011A	LE10004A	22DSE013W	Lab Control Sample (LCS)
380-1106-1	E049-01	1	NA	05/10/2216:43	05/09/2211:30	LE10014A	LE10004A	22DSE013W	Field Sample

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: 05/02/22 09:30
Project     : 380-1106                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID   : 380-1106-1                 Date Analyzed: 05/10/22 16:43
Lab Samp ID: 22E049-01                   Dilution Factor: 1
Lab File ID: LE10014A                    Matrix: WATER
Ext Btch ID: 22DSE013W                   % Moisture: NA
Calib. Ref.: LE10004A                    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	0.497	0.525	95	60-130	
Hexacosane	0.125	0.131	96	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 : 950ml Final Volume : 5ml
Prepared by : POrreto Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/09/22 11:30
Project     : 380-1106                   Date Received: 05/09/22
Batch No.  : 22E049                      Date Extracted: 05/09/22 11:30
Sample ID  : MBLK1W                      Date Analyzed: 05/10/22 15:29
Lab Samp ID: DSE013WB                   Dilution Factor: 1
Lab File ID: LE10010A                   Matrix: WATER
Ext Btch ID: 22DSE013W                  % Moisture: NA
Calib. Ref.: LE10004A                   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	0.487	0.500	97	60-130
Hexacosane	0.123	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 : POrto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-1106
BATCH NO. : 22E049
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSE013WB	DSE013WL
LAB FILE ID	: LE10010A	LE10011A
DATE PREPARED	: 05/09/22 11:30	05/09/22 11:30
DATE ANALYZED	: 05/10/22 15:29	05/10/22 15:48
PREP BATCH	: 22DSE013W	22DSE013W
CALIBRATION REF:	LE10004A	LE10004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.45	98	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.518	104	60-130
Hexacosane	0.125	0.128	102	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-1130
BATCH NO. : 22E049B
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-1130-1                         380-1130-1MS
LAB SAMPLE ID : 22E049-05                       22E049-05S
LAB FILE ID  : LE10016A                         LE10017A
DATE PREPARED : 05/09/22 11:30                 05/09/22 11:30
DATE ANALYZED : 05/10/22 17:20                 05/10/22 17:57
PREP BATCH   : 22DSE013W                       22DSE013W
CALIBRATION REF: LE10004A                      LE10004A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.40	2.40	100	2.40	2.30	96	4	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.480	0.480	100	0.480	0.486	101	60-130
Hexacosane	0.120	0.120	100	0.120	0.125	104	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

CHAIN OF CUSTODY RECORD



750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
Phone: 626 386 1100
Fax: 626 386 1101
800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____ SAMPLES CHECKED AGAINST COC BY: GR

SAMPLES LOGGED IN BY: _____ SAMPLES REC'D DAY OF COLLECTION? (check for yes)

SAMPLE TEMP RECEIVED AT: _____ °C (Compliance: 4 ± 2 °C)

Colton / No. California / Arizona 1.6 °C (Compliance: 4 ± 2 °C)

Monrovia Partially Frozen Thawed No Ice

CONDITION OF BLUE ICE: Frozen _____ UPS / DHL / Area Fast / Top Line / Other: _____

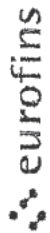
METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx

TO BE COMPLETED BY SAMPLER (check for yes)

COMPANY/AGENCY NAME: BWS HONOLULU		PROJECT CODE: Red Hill	COMPLIANCE SAMPLES - Requires state forms <input type="checkbox"/>	NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>
EEA CLIENT CODE: Honolulu		SAMPLE GROUP: _____	Type of samples (circle one): ROUTINE <input checked="" type="checkbox"/> SPECIAL <input type="checkbox"/> CONFIRMATION (eg SDWA, Phase V, NPDES, FDA,...)	
STANDARD requested: rush by adv notice only		STD ___ 1 wk ___ X ___ 3 day ___ 2 day ___ 1 day ___	SEE ATTACHED BOTTLE ORDER FOR ANALYSES list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	
SAMPLE DATE 5-2-22	SAMPLE TIME 0830	CLIENT LAB ID	TPH 8015	SAMPLER COMMENTS
		MATRIX	8015 Gas_C	
			525	
			X	
			X	
			X	
				Temp Blank: 8.5 °C

* 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

SAMPLED BY:	PRINT NAME	COMPANY/TITLE	DATE	TIME
[REDACTED]	Derek Dotson	Honolulu Board of Water Supply	5-2-2022	
RELINQUISHED BY:	Derek Dotson	Honolulu Board of Water Supply	5-3-2022	12:00
RECEIVED BY:	G. REITNER	BCA	5/4/22	11:11
RELINQUISHED BY:				
RECEIVED BY:				



Kit Order for Honolulu Board of Water Supply

Debbie L Frank is your Eurofins Eaton Analytical, LLC Service Manager

Created Date & Time: 12/27/2021 12:07:03AM

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
(626) 386-1100 FAX (866) 988-3757

Note: Sampler Please return this paper with your samples

Kit #: 308898

Created By: - [AutoGenerated]
Deliver By: 01/26/2022
STG: Bottle Orders
Ice Type: G

Pre Registered

Client (B- HONOLULU)

Project Code: RED-HILL - Bottle Orders
Project Name: Red-Hill Expanded List (Albuquerque+)
PO#JOB#: C20525101 exp 05312023
Description: MOANALUA WELLS - Every 1 wee

Ship Sample Kits to
Honolulu Board of Water Supply
630 South Beretania Street
Chemistry Lab
Honolulu, HI 96843
Attn: Ron Fenstermacher
Phone: 808-748-5641
Fax: 808-550-5572

Send Report to
Honolulu Board of Water Supply
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, HI 96843
Attn: Erwin Kawata
Phone: 808-748-5091
Fax: 808-550-5018

Billing Address
Honolulu Board of Water Supply
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, HI 96843
Attn: Erwin Kawata
Phone: 808-748-5091
Fax: 808-550-5018

UN DOT #	Total	Bottle Qty - Type [preservative information]
9	9	TPH 8015 Diesel and Motor Oil_C, TPH 8015 Jet Fuel 5_C, TPH 8015 Jet Fuel 8_C
3	3	3 - 40ml amber glass vial [1 drop Thio (8%)]
2	2	2 - 40ml amber glass vial [1 drop Thio (8%) + H2O]
3	3	3 - 40ml Amber glass vial [25mg AA+ H2O+40-drop 4:1 HCL]
Sum Bottles: 17		

Sum Bottles: 17

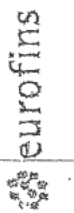
Comments

SITE ID: MOANALUA WELLS (334-223-TP202)

SAMPLER: Eight 1 LITER AMBER GLASS BOTTLES FOR 625 SERIES AND Nine 1 LITER AMBER GLASS BOTTLES FOR TPH 8015 SERIES. THIS IS A MSMSD SITE for 600 and 8000 series testing

SHIPPING: Travel Blanks - TBAMTBE, VOASDWA - Prepare TBs in the VOA LAB. Label Cooler on TOP and right below both Handles with Site description of contents (use extra Container Labels)

ASM: Be sure to coordinate Follow-up as needed for any new detections in Field samples. Acetone - follow-ups need to use EPA 624



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 = 049A (Observation = 4.8 °C) (Corr. Factor = -0.3 °C) (Final = 4.5 °C)
TYPE OF ICE: Real Synthetic No Ice Frozen Partially Frozen Thawed N/A

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

Compliance Acceptance Criteria:
1) Chemistry: >0, ≤ 8°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) <u>-0.3</u> °C (Final) = _____ °C	2 = (Observation) _____ °C (Corr. Factor) <u>-0.3</u> °C (Final) = _____ °C
3 = (Observation) _____ °C (Corr. Factor) <u>-0.3</u> °C (Final) = _____ °C	4 = (Observation) _____ °C (Corr. Factor) <u>-0.3</u> °C (Final) = _____ °C

4 Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)
5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date: _____ Results: _____
6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace: _____ No Samples with Headspace: _____ Samples with Headspace (see below): _____
Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)
Exempt from headspace concerns: Methods 815.4, HAA(6251,652), 606, SPME, @CH, 632LCMS, 656, 636, Anastoin, LCMS methods using 40 ml vials, International clients: None/<6 mm None/<6 mm

Samp ID	Boile #	>8mm	Test	Samp ID	Boile #	>8mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____
RECEIVED BY: [Signature] SIGNATURE: G. REITNER PRINT NAME: _____
COMPANY/TITLE: Eurofins Eaton Analytical DATE: 05/04/22 TIME: 11:11
SAMPLES CHECKED AGAINST CDD BY: _____ SIGNATURE: _____ PRINT NAME: _____
COMPANY/TITLE: Eurofins Eaton Analytical DATE: _____ TIME: _____





INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

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 = 049A (Observation = 5.6 °C) (Corr.Factor = -0.3 °C) (Final = 5.3 °C)

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

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

Compliance Acceptance Criteria:

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

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

1 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)

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

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

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

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

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

Exempt from headspace concerns: Methods 615.4, HAA (6251, 652), 505, SPME, @CH, 632LCMS, 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:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		G. REINER	Eurofins Eaton Analytical	05/04/22	11:11
SAMPLES CHECKED AGAINST COC BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
			Eurofins Eaton Analytical		





INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

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 = 049A (Observation = 5.5 °C) (Corr. Factor -0.3 °C) (Final = 5.2 °C)

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

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

Compliance Acceptance Criteria:

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

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

1 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)

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

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

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

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

Headspace:

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

Exempt from headspace concerns: Methods 815-4, HAA(6251,652), 606, SPME, @CH, 632LCMS, 556, 639, 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): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	G. REITNER	Eurofins Eaton Analytical	05/04/22	11:11
SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		

SAMPLES CHECKED AGAINST COG BY: _____



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-1106-1

Login Number: 1106
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

