

ANALYTICAL REPORT

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Laboratory Job ID: 380-19514-1
Client Project/Site: RED-HILL
Sampling Event: RUSH Weekly 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:
10/1/2022 6:16:58 PM

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

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



Rachelle Arada
Manager of Project Management
10/1/2022 6:16:58 PM



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	9
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	25
Lab Chronicle	26
Certification Summary	27
Method Summary	29
Sample Summary	30
Subcontract Data	31
Chain of Custody	79
Receipt Checklists	81



Definitions/Glossary

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

Job ID: 380-19514-1

Qualifiers

GC/MS Semi VOA

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

GC/MS Semi VOA TICs

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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: 380-19514-1

Job ID: 380-19514-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-19514-1

Comments

No additional comments.

Receipt

The samples were received on 9/2/2022 10:44 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

Receipt Exceptions

A Chain-of-Custody (COC) was not received with these samples: AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-19514-1) and TB:AIEA GULCH WELLS P1 (331-201-TP071) (380-19514-2).

GC/MS Semi VOA

Method 525.2: MRL preparation batch 380-16553 and analytical batch 380-16825 failed below acceptance limits for Caffeine. AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-19514-1) and (MRL 380-16553/2-A)

Method 525.2: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 380-16553 and analytical batch 380-16825 recovered below control limits for the following analyte(s): Caffeine. Caffeine has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-19514-1), (LCS 380-16553/3-A) and (LCSD 380-16553/4-A)

Method 525.2: The laboratory control sample duplicate (LCSD) for preparation batch 380-16553 and analytical batch 380-16825 recovered below control limits for the following analyte(s): Dimethoate. Dimethoate has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-19514-1) and (LCSD 380-16553/4-A)

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

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.

Method 625 PAH Physis LL (EAL) + TICs: This method was subcontracted to Physis Environmental Laboratories. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

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

Job ID: 380-19514-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**
PWSID Number: HI0000331

Lab Sample ID: 380-19514-1

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)

Lab Sample ID: 380-19514-2

No Detections.

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

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: 380-19514-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-19514-1

Date Collected: 09/01/22 09:57

Matrix: Drinking Water

Date Received: 09/02/22 10:44

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
2,4'-DDE	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
2,4'-DDT	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
2,4-Dinitrotoluene	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
2,6-Dinitrotoluene	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
4,4'-DDD	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
4,4'-DDE	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
4,4'-DDT	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Acenaphthene	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Acenaphthylene	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Acetochlor	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Alachlor	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
alpha-BHC	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
alpha-Chlordane	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Anthracene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 15:45	1
Atrazine	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Benz(a)anthracene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Benzo[a]pyrene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 15:45	1
Benzo[b]fluoranthene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 15:45	1
Benzo[g,h,i]perylene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Benzo[k]fluoranthene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 15:45	1
beta-BHC	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Bromacil	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Butachlor	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Butylbenzylphthalate	ND		0.49	ug/L		09/07/22 17:12	09/09/22 15:45	1
Caffeine	ND	*- ^3-	0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Chlorobenzilate	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Chloroneb	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Chlorpyrifos	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Chrysene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 15:45	1
delta-BHC	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		09/07/22 17:12	09/09/22 15:45	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		09/07/22 17:12	09/09/22 15:45	1
Diazinon (Qualitative)	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Dibenz(a,h)anthracene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Diclorvos (DDVP)	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Dieldrin	ND		0.20	ug/L		09/07/22 17:12	09/09/22 15:45	1
Diethylphthalate	ND		0.49	ug/L		09/07/22 17:12	09/09/22 15:45	1
Dimethoate	ND	*-	0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Dimethylphthalate	ND		0.49	ug/L		09/07/22 17:12	09/09/22 15:45	1
Di-n-butyl phthalate	ND		0.99	ug/L		09/07/22 17:12	09/09/22 15:45	1
Di-n-octyl phthalate	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Endosulfan I (Alpha)	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Endosulfan II (Beta)	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Endosulfan sulfate	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Endrin	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Endrin aldehyde	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1

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Client Sample Results

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

Job ID: 380-19514-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-19514-1

Date Collected: 09/01/22 09:57

Matrix: Drinking Water

Date Received: 09/02/22 10:44

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Fluoranthene	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Fluorene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
gamma-Chlordane	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Heptachlor	ND		0.040	ug/L		09/07/22 17:12	09/09/22 15:45	1
Heptachlor epoxide (isomer B)	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Hexachlorobenzene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Hexachlorocyclopentadiene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Indeno[1,2,3-cd]pyrene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Isophorone	ND		0.49	ug/L		09/07/22 17:12	09/09/22 15:45	1
Lindane	ND		0.040	ug/L		09/07/22 17:12	09/09/22 15:45	1
Malathion	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Methoxychlor	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Metolachlor	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Metribuzin	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Molinate	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Naphthalene	ND		0.30	ug/L		09/07/22 17:12	09/09/22 15:45	1
Parathion	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/07/22 17:12	09/09/22 15:45	1
Phenanthrene	ND		0.040	ug/L		09/07/22 17:12	09/09/22 15:45	1
Propachlor	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Pyrene	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Simazine	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Terbacil	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Terbutylazine	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1
Thiobencarb	ND		0.20	ug/L		09/07/22 17:12	09/09/22 15:45	1
trans-Nonachlor	ND		0.049	ug/L		09/07/22 17:12	09/09/22 15:45	1
Trifluralin	ND		0.099	ug/L		09/07/22 17:12	09/09/22 15:45	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>				<i>09/07/22 17:12</i>	<i>09/09/22 15:45</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2-Nitro-m-xylene</i>	<i>95</i>		<i>70 - 130</i>	<i>09/07/22 17:12</i>	<i>09/09/22 15:45</i>	<i>1</i>
<i>Triphenylphosphate</i>	<i>115</i>		<i>70 - 130</i>	<i>09/07/22 17:12</i>	<i>09/09/22 15:45</i>	<i>1</i>
<i>Perylene-d12</i>	<i>99</i>		<i>70 - 130</i>	<i>09/07/22 17:12</i>	<i>09/09/22 15:45</i>	<i>1</i>

Action Limit Summary

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

Job ID: 380-19514-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**
PWSID Number: HI0000331

Lab Sample ID: 380-19514-1

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		ug/L	2	0.099	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.040	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
Lindane	ND		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.099	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: 380-19514-1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	TPP (70-130)	PRY (70-130)
380-19514-1	AIEA GULCH WELLS PUMP 1 (95	115	99

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

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)
380-18940-D-1-A MS	Matrix Spike	95	112	99
380-18940-D-2-A DU	Duplicate	95	104	98
LCS 380-16553/3-A	Lab Control Sample	95	108	99
LCS D 380-16553/4-A	Lab Control Sample Dup	94	110	92
MB 380-16553/1-A	Method Blank	96	110	97
MRL 380-16553/2-A	Lab Control Sample	99	111	97

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

Method: EPA_625.1 - EPA_625.1

Matrix: water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		ANT (65-113)	CRY (60-139)	NPT (44-119)	PHN (80-111)	PRY (36-161)
99856-B1	Method Blank	96	92	94	100	101
99856-BS1	Lab Control Sample	101	99	91	99	107
99856-BS2	Lab Control Sample Dup	98	96	87	96	108

Surrogate Legend
 ANT = (d10-Acenaphthene)
 CRY = (d12-Chrysene)
 NPT = (d8-Naphthalene)
 PHN = (d10-Phenanthrene)
 PRY = (d12-Perylene)

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: MB 380-16553/1-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16553

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2,4'-DDD	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
2,4'-DDE	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
2,4'-DDT	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
2,4-Dinitrotoluene	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
2,6-Dinitrotoluene	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
4,4'-DDD	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
4,4'-DDE	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
4,4'-DDT	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Acenaphthene	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Acenaphthylene	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Acetochlor	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Alachlor	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
alpha-BHC	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
alpha-Chlordane	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Anthracene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 10:59	1
Atrazine	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Benz(a)anthracene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Benzo[a]pyrene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 10:59	1
Benzo[b]fluoranthene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 10:59	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Benzo[k]fluoranthene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 10:59	1
beta-BHC	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Bromacil	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Butachlor	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Butylbenzylphthalate	ND		0.50	ug/L		09/07/22 17:12	09/09/22 10:59	1
Caffeine	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Chlorobenzilate	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Chloroneb	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Chlorothalonil (Draconil, Bravo)	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Chlorpyrifos	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Chrysene	ND		0.020	ug/L		09/07/22 17:12	09/09/22 10:59	1
delta-BHC	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		09/07/22 17:12	09/09/22 10:59	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		09/07/22 17:12	09/09/22 10:59	1
Diazinon (Qualitative)	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Diclorvos (DDVP)	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Dieldrin	ND		0.20	ug/L		09/07/22 17:12	09/09/22 10:59	1
Diethylphthalate	ND		0.50	ug/L		09/07/22 17:12	09/09/22 10:59	1
Dimethoate	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Dimethylphthalate	ND		0.50	ug/L		09/07/22 17:12	09/09/22 10:59	1
Di-n-butyl phthalate	ND		1.0	ug/L		09/07/22 17:12	09/09/22 10:59	1
Di-n-octyl phthalate	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Endosulfan I (Alpha)	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Endosulfan II (Beta)	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Endosulfan sulfate	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Endrin	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Endrin aldehyde	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: MB 380-16553/1-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16553

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Fluoranthene	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Fluorene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
gamma-Chlordane	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Heptachlor	ND		0.040	ug/L		09/07/22 17:12	09/09/22 10:59	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Hexachlorobenzene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Isophorone	ND		0.50	ug/L		09/07/22 17:12	09/09/22 10:59	1
Lindane	ND		0.040	ug/L		09/07/22 17:12	09/09/22 10:59	1
Malathion	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Methoxychlor	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Metolachlor	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Metribuzin	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Molinate	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Naphthalene	ND		0.30	ug/L		09/07/22 17:12	09/09/22 10:59	1
Parathion	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Pendimethalin (Penoxaline)	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/07/22 17:12	09/09/22 10:59	1
Phenanthrene	ND		0.040	ug/L		09/07/22 17:12	09/09/22 10:59	1
Propachlor	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Pyrene	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Simazine	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Terbacil	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Terbutylazine	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1
Thiobencarb	ND		0.20	ug/L		09/07/22 17:12	09/09/22 10:59	1
trans-Nonachlor	ND		0.050	ug/L		09/07/22 17:12	09/09/22 10:59	1
Trifluralin	ND		0.10	ug/L		09/07/22 17:12	09/09/22 10:59	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.30	T J N	ug/L		2.46	124-18-5	09/07/22 17:12	09/09/22 10:59	1
n-Hexadecanoic acid	1.75	T J N	ug/L		5.92	57-10-3	09/07/22 17:12	09/09/22 10:59	1
Octadecanoic acid	2.83	T J N	ug/L		6.63	57-11-4	09/07/22 17:12	09/09/22 10:59	1
9-Octadecenamamide, (Z)-	0.627	T J N	ug/L		7.65	301-02-0	09/07/22 17:12	09/09/22 10:59	1
Tetrasiloxane, decamethyl-	1.79	T J N	ug/L		7.89	141-62-8	09/07/22 17:12	09/09/22 10:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	09/07/22 17:12	09/09/22 10:59	1
Triphenylphosphate	110		70 - 130	09/07/22 17:12	09/09/22 10:59	1
Perylene-d12	97		70 - 130	09/07/22 17:12	09/09/22 10:59	1

Lab Sample ID: LCS 380-16553/3-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.98	2.25		ug/L		113	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: LCS 380-16553/3-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDE	1.98	2.11		ug/L		106	70 - 130
2,4'-DDT	1.98	2.23		ug/L		113	70 - 130
2,4-Dinitrotoluene	1.98	1.81		ug/L		91	70 - 130
2,6-Dinitrotoluene	1.98	1.72		ug/L		87	70 - 130
4,4'-DDD	1.98	2.34		ug/L		118	70 - 130
4,4'-DDE	1.98	2.39		ug/L		121	70 - 130
4,4'-DDT	1.98	2.06		ug/L		104	70 - 130
Acenaphthene	1.98	2.07		ug/L		105	70 - 130
Acenaphthylene	1.98	2.10		ug/L		106	70 - 130
Acetochlor	1.98	2.15		ug/L		109	70 - 130
Alachlor	1.98	2.16		ug/L		109	70 - 130
alpha-BHC	1.98	2.24		ug/L		113	70 - 130
alpha-Chlordane	1.98	2.35		ug/L		119	70 - 130
Anthracene	1.98	2.20		ug/L		111	70 - 130
Atrazine	1.98	2.34		ug/L		118	70 - 130
Benz(a)anthracene	1.98	2.11		ug/L		107	70 - 130
Benzo[a]pyrene	1.98	2.22		ug/L		112	70 - 130
Benzo[b]fluoranthene	1.98	2.23		ug/L		113	70 - 130
Benzo[g,h,i]perylene	1.98	2.53		ug/L		127	70 - 130
Benzo[k]fluoranthene	1.98	2.25		ug/L		113	70 - 130
beta-BHC	1.98	2.19		ug/L		111	70 - 130
Bromacil	1.98	1.79		ug/L		90	70 - 130
Butachlor	1.98	2.39		ug/L		121	70 - 130
Butylbenzylphthalate	1.98	2.36		ug/L		119	70 - 130
Caffeine	1.98	0.773	*	ug/L		39	45 - 137
Chlorobenzilate	1.98	2.28		ug/L		115	70 - 130
Chloroneb	1.98	2.20		ug/L		111	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.32		ug/L		117	70 - 130
Chlorpyrifos	1.98	2.23		ug/L		113	70 - 130
Chrysene	1.98	2.22		ug/L		112	70 - 130
delta-BHC	1.98	2.07		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.55		ug/L		129	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	2.41		ug/L		121	70 - 130
Diazinon (Qualitative)	1.98	1.97		ug/L		99	15 - 132
Dibenz(a,h)anthracene	1.98	2.42		ug/L		122	70 - 130
Diclorvos (DDVP)	1.98	2.07		ug/L		104	70 - 130
Dieldrin	1.98	2.07		ug/L		104	70 - 130
Diethylphthalate	1.98	2.19		ug/L		110	70 - 130
Dimethoate	1.98	0.724		ug/L		37	35 - 100
Dimethylphthalate	1.98	2.16		ug/L		109	70 - 130
Di-n-butyl phthalate	3.96	4.29		ug/L		108	70 - 130
Di-n-octyl phthalate	1.98	2.17		ug/L		110	70 - 130
Endosulfan I (Alpha)	1.98	2.21		ug/L		111	70 - 130
Endosulfan II (Beta)	1.98	2.37		ug/L		120	70 - 130
Endosulfan sulfate	1.98	2.22		ug/L		112	70 - 130
Endrin	1.98	2.18		ug/L		110	70 - 130
Endrin aldehyde	1.98	2.22		ug/L		112	70 - 130
EPTC	1.98	2.17		ug/L		110	70 - 130
Fluoranthene	1.98	2.31		ug/L		117	70 - 130

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QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: LCS 380-16553/3-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	1.98	2.23		ug/L		113	70 - 130
gamma-Chlordane	1.98	2.40		ug/L		121	70 - 130
Heptachlor	1.98	2.12		ug/L		107	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.28		ug/L		115	70 - 130
Hexachlorobenzene	1.98	2.18		ug/L		110	70 - 130
Hexachlorocyclopentadiene	1.98	2.04		ug/L		103	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	2.49		ug/L		126	70 - 130
Isophorone	1.98	2.09		ug/L		105	70 - 130
Lindane	1.98	2.24		ug/L		113	70 - 130
Malathion	1.98	2.43		ug/L		123	70 - 130
Methoxychlor	1.98	2.20		ug/L		111	70 - 130
Metolachlor	1.98	2.23		ug/L		112	70 - 130
Metribuzin	1.98	1.84		ug/L		93	70 - 130
Molinate	1.98	2.20		ug/L		111	70 - 130
Naphthalene	1.98	2.02		ug/L		102	70 - 130
Parathion	1.98	2.26		ug/L		114	70 - 130
Pendimethalin (Penoxaline)	1.98	2.08		ug/L		105	70 - 130
Phenanthrene	1.98	2.10		ug/L		106	70 - 130
Propachlor	1.98	2.26		ug/L		114	70 - 130
Pyrene	1.98	2.32		ug/L		117	70 - 130
Simazine	1.98	2.11		ug/L		106	70 - 130
Terbacil	1.98	1.98		ug/L		100	70 - 130
Terbutylazine	1.98	2.40		ug/L		121	70 - 130
Thiobencarb	1.98	2.13		ug/L		108	70 - 130
trans-Nonachlor	1.98	2.41		ug/L		122	70 - 130
Trifluralin	1.98	2.30		ug/L		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	95		70 - 130
Triphenylphosphate	108		70 - 130
Perylene-d12	99		70 - 130

Lab Sample ID: LCSD 380-16553/4-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.98	2.20		ug/L		111	70 - 130	2	20
2,4'-DDE	1.98	2.08		ug/L		105	70 - 130	1	20
2,4'-DDT	1.98	2.18		ug/L		110	70 - 130	3	20
2,4-Dinitrotoluene	1.98	1.70		ug/L		86	70 - 130	6	20
2,6-Dinitrotoluene	1.98	1.68		ug/L		84	70 - 130	3	20
4,4'-DDD	1.98	2.35		ug/L		119	70 - 130	1	20
4,4'-DDE	1.98	2.36		ug/L		119	70 - 130	2	20
4,4'-DDT	1.98	1.98		ug/L		100	70 - 130	4	20
Acenaphthene	1.98	2.06		ug/L		104	70 - 130	1	20
Acenaphthylene	1.98	2.06		ug/L		104	70 - 130	2	20
Acetochlor	1.98	2.19		ug/L		111	70 - 130	2	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: LCSD 380-16553/4-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Alachlor	1.98	2.20		ug/L		111	70 - 130	2	20	
alpha-BHC	1.98	2.22		ug/L		112	70 - 130	1	20	
alpha-Chlordane	1.98	2.40		ug/L		121	70 - 130	2	20	
Anthracene	1.98	2.19		ug/L		110	70 - 130	0	20	
Atrazine	1.98	2.32		ug/L		117	70 - 130	1	20	
Benz(a)anthracene	1.98	2.11		ug/L		106	70 - 130	0	20	
Benzo[a]pyrene	1.98	2.08		ug/L		105	70 - 130	6	20	
Benzo[b]fluoranthene	1.98	2.15		ug/L		108	70 - 130	4	20	
Benzo[g,h,i]perylene	1.98	2.32		ug/L		117	70 - 130	8	20	
Benzo[k]fluoranthene	1.98	2.11		ug/L		106	70 - 130	6	20	
beta-BHC	1.98	2.16		ug/L		109	70 - 130	1	20	
Bromacil	1.98	1.68		ug/L		85	70 - 130	6	20	
Butachlor	1.98	2.40		ug/L		121	70 - 130	0	20	
Butylbenzylphthalate	1.98	2.37		ug/L		120	70 - 130	1	20	
Caffeine	1.98	0.677	*-	ug/L		34	45 - 137	13	20	
Chlorobenzilate	1.98	2.30		ug/L		116	70 - 130	1	20	
Chloroneb	1.98	2.20		ug/L		111	70 - 130	0	20	
Chlorothalonil (Draconil, Bravo)	1.98	2.39		ug/L		120	70 - 130	3	20	
Chlorpyrifos	1.98	2.22		ug/L		112	70 - 130	1	20	
Chrysene	1.98	2.18		ug/L		110	70 - 130	2	20	
delta-BHC	1.98	2.07		ug/L		104	70 - 130	0	20	
Di(2-ethylhexyl)adipate	1.98	2.40		ug/L		121	70 - 130	6	20	
Bis(2-ethylhexyl) phthalate	1.98	2.15		ug/L		109	70 - 130	11	20	
Diazinon (Qualitative)	1.98	1.90		ug/L		96	15 - 132	4	20	
Dibenz(a,h)anthracene	1.98	2.17		ug/L		109	70 - 130	11	20	
Diclorvos (DDVP)	1.98	2.05		ug/L		103	70 - 130	1	20	
Dieldrin	1.98	2.10		ug/L		106	70 - 130	1	20	
Diethylphthalate	1.98	2.18		ug/L		110	70 - 130	0	20	
Dimethoate	1.98	0.644	*-	ug/L		32	35 - 100	12	20	
Dimethylphthalate	1.98	2.07		ug/L		105	70 - 130	4	20	
Di-n-butyl phthalate	3.97	4.68		ug/L		118	70 - 130	9	20	
Di-n-octyl phthalate	1.98	1.83		ug/L		92	70 - 130	17	20	
Endosulfan I (Alpha)	1.98	2.20		ug/L		111	70 - 130	0	20	
Endosulfan II (Beta)	1.98	2.34		ug/L		118	70 - 130	1	20	
Endosulfan sulfate	1.98	2.21		ug/L		111	70 - 130	0	20	
Endrin	1.98	2.19		ug/L		110	70 - 130	1	20	
Endrin aldehyde	1.98	2.18		ug/L		110	70 - 130	2	20	
EPTC	1.98	2.21		ug/L		111	70 - 130	2	20	
Fluoranthene	1.98	2.31		ug/L		116	70 - 130	0	20	
Fluorene	1.98	2.24		ug/L		113	70 - 130	0	20	
gamma-Chlordane	1.98	2.42		ug/L		122	70 - 130	1	20	
Heptachlor	1.98	2.12		ug/L		107	70 - 130	0	20	
Heptachlor epoxide (isomer B)	1.98	2.28		ug/L		115	70 - 130	0	20	
Hexachlorobenzene	1.98	2.19		ug/L		110	70 - 130	0	20	
Hexachlorocyclopentadiene	1.98	2.05		ug/L		103	70 - 130	0	20	
Indeno[1,2,3-cd]pyrene	1.98	2.24		ug/L		113	70 - 130	11	20	
Isophorone	1.98	2.06		ug/L		104	70 - 130	2	20	
Lindane	1.98	2.20		ug/L		111	70 - 130	2	20	
Malathion	1.98	2.48		ug/L		125	70 - 130	2	20	

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: LCSD 380-16553/4-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methoxychlor	1.98	2.15		ug/L		108	70 - 130	2	20
Metolachlor	1.98	2.23		ug/L		112	70 - 130	0	20
Metribuzin	1.98	1.72		ug/L		87	70 - 130	7	20
Molinate	1.98	2.22		ug/L		112	70 - 130	1	20
Naphthalene	1.98	2.03		ug/L		102	70 - 130	1	20
Parathion	1.98	2.25		ug/L		114	70 - 130	0	20
Pendimethalin (Penoxaline)	1.98	2.12		ug/L		107	70 - 130	2	20
Phenanthrene	1.98	2.09		ug/L		106	70 - 130	0	20
Propachlor	1.98	2.26		ug/L		114	70 - 130	0	20
Pyrene	1.98	2.31		ug/L		116	70 - 130	0	20
Simazine	1.98	2.00		ug/L		101	70 - 130	5	20
Terbacil	1.98	1.82		ug/L		92	70 - 130	9	20
Terbutylazine	1.98	2.40		ug/L		121	70 - 130	0	20
Thiobencarb	1.98	2.16		ug/L		109	70 - 130	1	20
trans-Nonachlor	1.98	2.40		ug/L		121	70 - 130	0	20
Trifluralin	1.98	2.33		ug/L		117	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	94		70 - 130
Triphenylphosphate	110		70 - 130
Perylene-d12	92		70 - 130

Lab Sample ID: MRL 380-16553/2-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0999	0.149		ug/L		149	50 - 150
2,4'-DDE	0.0999	0.105		ug/L		106	50 - 150
2,4'-DDT	0.0999	0.0991	J	ug/L		99	50 - 150
2,4-Dinitrotoluene	0.0999	0.0757	J	ug/L		76	50 - 150
2,6-Dinitrotoluene	0.0999	0.0813	J	ug/L		81	50 - 150
4,4'-DDD	0.0999	0.117		ug/L		118	50 - 150
4,4'-DDE	0.0999	0.107		ug/L		107	50 - 150
4,4'-DDT	0.0999	0.127		ug/L		127	50 - 150
Acenaphthene	0.0999	0.101		ug/L		101	50 - 150
Acenaphthylene	0.0999	0.0860	J	ug/L		86	50 - 150
Acetochlor	0.0499	0.0434	J	ug/L		87	50 - 150
Alachlor	0.0499	0.0574		ug/L		115	50 - 150
alpha-BHC	0.0999	0.121		ug/L		121	50 - 150
alpha-Chlordane	0.0499	0.0601		ug/L		120	50 - 150
Anthracene	0.0200	0.0227		ug/L		114	50 - 150
Atrazine	0.0499	0.0629		ug/L		126	50 - 150
Benz(a)anthracene	0.0499	0.0701		ug/L		140	50 - 150
Benzo[a]pyrene	0.0200	0.0212		ug/L		106	50 - 150
Benzo[b]fluoranthene	0.0200	0.0233		ug/L		116	50 - 150
Benzo[g,h,i]perylene	0.0499	0.0564		ug/L		113	50 - 150
Benzo[k]fluoranthene	0.0200	0.0231		ug/L		115	50 - 150

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QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: MRL 380-16553/2-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
beta-BHC	0.0999	0.117		ug/L		117	50 - 150
Bromacil	0.0999	0.125		ug/L		125	50 - 150
Butachlor	0.0499	0.0629		ug/L		126	50 - 150
Butylbenzylphthalate	0.150	0.192	J	ug/L		128	50 - 150
Caffeine	0.0499	0.0205	J ^3-	ug/L		41	50 - 150
Chlorobenzilate	0.0999	0.116		ug/L		116	50 - 150
Chloroneb	0.0999	0.123		ug/L		123	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0999	0.113		ug/L		113	50 - 150
Chlorpyrifos	0.0499	0.0528		ug/L		106	50 - 150
Chrysene	0.0200	0.0251		ug/L		126	50 - 150
delta-BHC	0.0999	0.134		ug/L		134	50 - 150
Di(2-ethylhexyl)adipate	0.300	0.394	J	ug/L		132	50 - 150
Bis(2-ethylhexyl) phthalate	0.599	0.681		ug/L		114	50 - 150
Diazinon (Qualitative)	0.0999	0.115		ug/L		115	15 - 132
Dibenz(a,h)anthracene	0.0499	0.0558		ug/L		112	50 - 150
Diclorvos (DDVP)	0.0499	0.0559		ug/L		112	50 - 150
Dieldrin	0.0999	0.106	J	ug/L		107	50 - 150
Diethylphthalate	0.150	0.184	J	ug/L		123	50 - 150
Dimethoate	0.0999	0.0405	J	ug/L		41	35 - 100
Dimethylphthalate	0.300	0.322	J	ug/L		108	50 - 150
Di-n-butyl phthalate	0.300	0.365	J	ug/L		122	49 - 243
Di-n-octyl phthalate	0.0999	0.109		ug/L		109	50 - 150
Endosulfan I (Alpha)	0.0999	0.139		ug/L		139	50 - 150
Endosulfan II (Beta)	0.0999	0.141		ug/L		142	50 - 150
Endosulfan sulfate	0.0999	0.113		ug/L		113	50 - 150
Endrin	0.0999	0.118		ug/L		118	50 - 150
Endrin aldehyde	0.0999	0.130		ug/L		130	50 - 150
EPTC	0.0999	0.106		ug/L		106	50 - 150
Fluoranthene	0.0499	0.0583	J	ug/L		117	50 - 150
Fluorene	0.0499	0.0595		ug/L		119	50 - 150
gamma-Chlordane	0.0499	0.0553		ug/L		111	50 - 150
Heptachlor	0.0399	0.0519		ug/L		130	50 - 150
Heptachlor epoxide (isomer B)	0.0499	0.0552		ug/L		111	50 - 150
Hexachlorobenzene	0.0499	0.0637		ug/L		128	50 - 150
Hexachlorocyclopentadiene	0.0499	0.0502		ug/L		100	50 - 150
Indeno[1,2,3-cd]pyrene	0.0499	0.0520		ug/L		104	50 - 150
Isophorone	0.0999	0.108	J	ug/L		108	50 - 150
Lindane	0.0499	0.0582		ug/L		117	50 - 150
Malathion	0.0999	0.115		ug/L		115	50 - 150
Methoxychlor	0.0999	0.126		ug/L		126	50 - 150
Metolachlor	0.0499	0.0582		ug/L		116	50 - 150
Metribuzin	0.0499	0.0443	J	ug/L		89	50 - 150
Molinate	0.0999	0.112		ug/L		112	50 - 150
Naphthalene	0.0999	0.119	J	ug/L		120	50 - 150
Parathion	0.0999	0.128		ug/L		129	50 - 150
Pendimethalin (Penoxaline)	0.0999	0.119		ug/L		119	50 - 150
Phenanthrene	0.0200	0.0253	J	ug/L		127	50 - 150
Propachlor	0.0499	0.0589		ug/L		118	50 - 150
Pyrene	0.0499	0.0597		ug/L		120	50 - 150

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QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: MRL 380-16553/2-A
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Simazine	0.0499	0.0621		ug/L		124	50 - 150
Terbacil	0.0999	0.113		ug/L		113	50 - 150
Terbutylazine	0.0999	0.134		ug/L		134	50 - 150
Thiobencarb	0.0999	0.119	J	ug/L		119	50 - 150
trans-Nonachlor	0.0499	0.0628		ug/L		126	50 - 150
Trifluralin	0.0999	0.103		ug/L		103	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Triphenylphosphate	111		70 - 130
Perylene-d12	97		70 - 130

Lab Sample ID: 380-18940-D-1-A MS
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		1.98	2.13		ug/L		107	70 - 130
2,4'-DDE	ND		1.98	2.00		ug/L		101	70 - 130
2,4'-DDT	ND		1.98	2.11		ug/L		107	70 - 130
2,4-Dinitrotoluene	ND		1.98	1.93		ug/L		97	70 - 130
2,6-Dinitrotoluene	ND		1.98	1.85		ug/L		94	70 - 130
4,4'-DDD	ND		1.98	2.25		ug/L		114	70 - 130
4,4'-DDE	ND		1.98	2.26		ug/L		114	70 - 130
4,4'-DDT	ND		1.98	1.93		ug/L		98	70 - 130
Acenaphthene	ND		1.98	2.03		ug/L		103	70 - 130
Acenaphthylene	ND		1.98	2.04		ug/L		103	70 - 130
Acetochlor	ND		1.98	2.19		ug/L		111	70 - 130
Alachlor	ND		1.98	2.17		ug/L		110	70 - 130
alpha-BHC	ND		1.98	2.20		ug/L		111	70 - 130
alpha-Chlordane	ND		1.98	2.30		ug/L		116	70 - 130
Anthracene	ND	F1	1.98	1.05	F1	ug/L		53	70 - 130
Atrazine	ND		1.98	2.37		ug/L		120	70 - 130
Benz(a)anthracene	ND		1.98	1.85		ug/L		93	70 - 130
Benzo[a]pyrene	ND		1.98	1.59		ug/L		81	70 - 130
Benzo[b]fluoranthene	ND		1.98	2.26		ug/L		114	70 - 130
Benzo[g,h,i]perylene	ND		1.98	2.58		ug/L		130	70 - 130
Benzo[k]fluoranthene	ND		1.98	2.23		ug/L		113	70 - 130
beta-BHC	ND		1.98	2.19		ug/L		111	70 - 130
Bromacil	ND		1.98	1.99		ug/L		100	70 - 130
Butachlor	ND		1.98	2.37		ug/L		120	70 - 130
Butylbenzylphthalate	ND		1.98	2.34		ug/L		119	70 - 130
Caffeine	ND	*- ^3-	1.98	0.967		ug/L		49	46 - 144
Chlorobenzilate	ND		1.98	2.29		ug/L		116	70 - 130
Chloroneb	ND		1.98	2.17		ug/L		110	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.98	2.30		ug/L		116	70 - 130
Chlorpyrifos	ND		1.98	2.22		ug/L		112	70 - 130
Chrysene	ND		1.98	2.22		ug/L		112	70 - 130

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: 380-18940-D-1-A MS

Matrix: Water

Analysis Batch: 16825

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 16553

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
delta-BHC	ND		1.98	2.08		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	ND		1.98	2.30		ug/L		116	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.98	2.16		ug/L		109	70 - 130
Diazinon (Qualitative)	ND		1.98	2.09		ug/L		106	15 - 132
Dibenz(a,h)anthracene	ND		1.98	2.43		ug/L		123	70 - 130
Diclorvos (DDVP)	ND		1.98	2.16		ug/L		109	70 - 130
Dieldrin	ND		1.98	2.09		ug/L		106	70 - 130
Diethylphthalate	ND		1.98	2.16		ug/L		109	70 - 130
Dimethoate	ND	*	1.98	0.855		ug/L		43	34 - 111
Dimethylphthalate	ND		1.98	2.16		ug/L		109	70 - 130
Di-n-butyl phthalate	ND		3.95	4.57		ug/L		116	70 - 130
Di-n-octyl phthalate	ND		1.98	1.89		ug/L		96	70 - 130
Endosulfan I (Alpha)	ND		1.98	2.19		ug/L		111	70 - 130
Endosulfan II (Beta)	ND		1.98	2.25		ug/L		114	70 - 130
Endosulfan sulfate	ND		1.98	2.19		ug/L		111	70 - 130
Endrin	ND		1.98	2.13		ug/L		108	70 - 130
Endrin aldehyde	ND		1.98	1.90		ug/L		96	70 - 130
EPTC	ND		1.98	2.19		ug/L		111	70 - 130
Fluoranthene	ND		1.98	2.28		ug/L		115	70 - 130
Fluorene	ND		1.98	2.23		ug/L		113	70 - 130
gamma-Chlordane	ND		1.98	2.32		ug/L		117	70 - 130
Heptachlor	ND		1.98	2.10		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	ND		1.98	2.31		ug/L		117	70 - 130
Hexachlorobenzene	ND		1.98	2.17		ug/L		110	70 - 130
Hexachlorocyclopentadiene	ND		1.98	2.08		ug/L		105	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.98	2.46		ug/L		124	70 - 130
Isophorone	ND		1.98	2.08		ug/L		105	70 - 130
Lindane	ND		1.98	2.23		ug/L		113	70 - 130
Malathion	ND		1.98	2.41		ug/L		122	70 - 130
Methoxychlor	ND		1.98	2.25		ug/L		114	70 - 130
Metolachlor	ND		1.98	2.21		ug/L		112	70 - 130
Metribuzin	ND		1.98	2.00		ug/L		101	70 - 130
Molinate	ND		1.98	2.21		ug/L		112	70 - 130
Naphthalene	ND		1.98	2.03		ug/L		103	70 - 130
Parathion	ND		1.98	2.26		ug/L		114	70 - 130
Pendimethalin (Penoxaline)	ND		1.98	2.09		ug/L		106	70 - 130
Phenanthrene	ND		1.98	2.13		ug/L		108	70 - 130
Propachlor	ND		1.98	2.24		ug/L		113	70 - 130
Pyrene	ND		1.98	2.27		ug/L		115	70 - 130
Simazine	ND		1.98	2.26		ug/L		114	70 - 130
Terbacil	ND		1.98	2.11		ug/L		107	70 - 130
Terbutylazine	ND		1.98	2.38		ug/L		120	70 - 130
Thiobencarb	ND		1.98	2.12		ug/L		107	70 - 130
trans-Nonachlor	ND		1.98	2.34		ug/L		118	70 - 130
Trifluralin	ND		1.98	2.31		ug/L		117	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: 380-18940-D-1-A MS
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16553

Surrogate	%Recovery	MS MS Qualifier	Limits
Triphenylphosphate	112		70 - 130
Perylene-d12	99		70 - 130

Lab Sample ID: 380-18940-D-2-A DU
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 16553

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	*- ^3-	ND	*-	ug/L		NC	20
Chlorobenzilate	ND		ND		ug/L		NC	20
Chloroneb	ND		ND		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	ND		ND		ug/L		NC	20
Chlorpyrifos	ND		ND		ug/L		NC	20
Chrysene	ND		ND		ug/L		NC	20
delta-BHC	ND		ND		ug/L		NC	20
Di(2-ethylhexyl)adipate	ND		ND		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	ND		ND		ug/L		NC	20
Diazinon (Qualitative)	ND		ND		ug/L		NC	20
Dibenz(a,h)anthracene	ND		ND		ug/L		NC	20
Diclorvos (DDVP)	ND		ND		ug/L		NC	20
Dieldrin	ND		ND		ug/L		NC	20
Diethylphthalate	ND		ND		ug/L		NC	20
Dimethoate	ND	*-	ND	*-	ug/L		NC	20

QC Sample Results

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

Job ID: 380-19514-1

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

Lab Sample ID: 380-18940-D-2-A DU
Matrix: Water
Analysis Batch: 16825

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 16553

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
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
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	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130
Triphenylphosphate	104		70 - 130
Perylene-d12	98		70 - 130

QC Sample Results

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

Job ID: 380-19514-1

Method: EPA_625.1 - EPA_625.1

Lab Sample ID: 99856-B1
Matrix: water
Analysis Batch: O-38108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38108_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Acenaphthene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Acenaphthylene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Anthracene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Biphenyl	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Chrysene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Dibenzothiophene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		09/02/22 00:00	09/11/22 07:52	1
Fluoranthene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Fluorene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Naphthalene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Perylene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Phenanthrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1
Pyrene	ND		0.005	0.001	µg/L		09/02/22 00:00	09/11/22 07:52	1

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	96		65 - 113	09/02/22 00:00	09/11/22 07:52	1
(d10-Phenanthrene)	100		80 - 111	09/02/22 00:00	09/11/22 07:52	1
(d12-Chrysene)	92		60 - 139	09/02/22 00:00	09/11/22 07:52	1
(d12-Perylene)	101		36 - 161	09/02/22 00:00	09/11/22 07:52	1
(d8-Naphthalene)	94		44 - 119	09/02/22 00:00	09/11/22 07:52	1

Lab Sample ID: 99856-BS1
Matrix: water
Analysis Batch: O-38108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38108_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.485		µg/L		97	49 - 117
1-Methylphenanthrene	0.5	0.524		µg/L		105	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.479		µg/L		96	57 - 120
2,6-Dimethylnaphthalene	0.5	0.481		µg/L		96	54 - 117
2-Methylnaphthalene	0.5	0.477		µg/L		95	47 - 130
Acenaphthene	0.5	0.485		µg/L		97	53 - 131
Acenaphthylene	0.5	0.493		µg/L		99	43 - 140
Anthracene	0.5	0.483		µg/L		97	58 - 135

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

Method: EPA_625.1 - EPA_625.1 (Continued)

Lab Sample ID: 99856-BS1
Matrix: water
Analysis Batch: O-38108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38108_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benz[a]anthracene	0.5	0.488		µg/L		98	55 - 145
Benzo[a]pyrene	0.5	0.475		µg/L		95	51 - 143
Benzo[b]fluoranthene	0.5	0.619		µg/L		124	46 - 165
Benzo[e]pyrene	0.5	0.575		µg/L		115	42 - 152
Benzo[g,h,i]perylene	0.5	0.483		µg/L		97	63 - 133
Benzo[k]fluoranthene	0.5	0.588		µg/L		118	56 - 145
Biphenyl	0.5	0.477		µg/L		95	56 - 119
Chrysene	0.5	0.429		µg/L		86	56 - 141
Dibenz[a,h]anthracene	0.5	0.585		µg/L		117	55 - 150
Dibenzo[a,l]pyrene	0.5	0.415		µg/L		83	50 - 150
Dibenzothiophene	0.5	0.473		µg/L		95	75 - 113
Disalicylidenepropanediamine	50	33.6		µg/L		67	50 - 150
Fluoranthene	0.5	0.524		µg/L		105	60 - 146
Fluorene	0.5	0.467		µg/L		93	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.578		µg/L		116	50 - 151
Naphthalene	0.5	0.461		µg/L		92	41 - 126
Perylene	0.5	0.514		µg/L		103	48 - 141
Phenanthrene	0.5	0.48		µg/L		96	67 - 127
Pyrene	0.5	0.52		µg/L		104	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
(d10-Acenaphthene)	101		65 - 113
(d10-Phenanthrene)	99		80 - 111
(d12-Chrysene)	99		60 - 139
(d12-Perylene)	107		36 - 161
(d8-Naphthalene)	91		44 - 119

Lab Sample ID: 99856-BS2
Matrix: water
Analysis Batch: O-38108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38108_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.468		µg/L		94	49 - 117	3	30
1-Methylphenanthrene	0.5	0.526		µg/L		105	66 - 127	0	30
2,3,5-Trimethylnaphthalene	0.5	0.48		µg/L		96	57 - 120	0	30
2,6-Dimethylnaphthalene	0.5	0.469		µg/L		94	54 - 117	2	30
2-Methylnaphthalene	0.5	0.465		µg/L		93	47 - 130	2	30
Acenaphthene	0.5	0.472		µg/L		94	53 - 131	3	30
Acenaphthylene	0.5	0.497		µg/L		99	43 - 140	0	30
Anthracene	0.5	0.473		µg/L		95	58 - 135	2	30
Benz[a]anthracene	0.5	0.499		µg/L		100	55 - 145	2	30
Benzo[a]pyrene	0.5	0.421		µg/L		84	51 - 143	12	30
Benzo[b]fluoranthene	0.5	0.605		µg/L		121	46 - 165	2	30
Benzo[e]pyrene	0.5	0.568		µg/L		114	42 - 152	1	30
Benzo[g,h,i]perylene	0.5	0.487		µg/L		97	63 - 133	0	30
Benzo[k]fluoranthene	0.5	0.583		µg/L		117	56 - 145	1	30
Biphenyl	0.5	0.463		µg/L		93	56 - 119	2	30
Chrysene	0.5	0.418		µg/L		84	56 - 141	2	30

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-19514-1

Method: EPA_625.1 - EPA_625.1 (Continued)

Lab Sample ID: 99856-BS2
Matrix: water
Analysis Batch: O-38108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38108_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Dibenz[a,h]anthracene	0.5	0.598		µg/L		120	55 - 150	3	30	
Dibenzo[a,i]pyrene	0.5	0.412		µg/L		82	50 - 150	1	30	
Dibenzothiophene	0.5	0.465		µg/L		93	75 - 113	2	30	
Disalicylidenepropanediamine	50	39.2		µg/L		78	50 - 150	15	30	
Fluoranthene	0.5	0.524		µg/L		105	60 - 146	0	30	
Fluorene	0.5	0.466		µg/L		93	58 - 131	0	30	
Indeno[1,2,3-cd]pyrene	0.5	0.591		µg/L		118	50 - 151	2	30	
Naphthalene	0.5	0.444		µg/L		89	41 - 126	3	30	
Perylene	0.5	0.518		µg/L		104	48 - 141	1	30	
Phenanthrene	0.5	0.471		µg/L		94	67 - 127	2	30	
Pyrene	0.5	0.524		µg/L		105	54 - 156	1	30	

Surrogate	LCS DUP		Limits
	%Recovery	Qualifier	
(d10-Acenaphthene)	98		65 - 113
(d10-Phenanthrene)	96		80 - 111
(d12-Chrysene)	96		60 - 139
(d12-Perylene)	108		36 - 161
(d8-Naphthalene)	87		44 - 119

QC Association Summary

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

Job ID: 380-19514-1

GC/MS Semi VOA

Prep Batch: 16553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-19514-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
MB 380-16553/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-16553/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-16553/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-16553/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-18940-D-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-18940-D-2-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 16825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-19514-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	16553
MB 380-16553/1-A	Method Blank	Total/NA	Water	525.2	16553
LCS 380-16553/3-A	Lab Control Sample	Total/NA	Water	525.2	16553
LCSD 380-16553/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	16553
MRL 380-16553/2-A	Lab Control Sample	Total/NA	Water	525.2	16553
380-18940-D-1-A MS	Matrix Spike	Total/NA	Water	525.2	16553
380-18940-D-2-A DU	Duplicate	Total/NA	Water	525.2	16553

Subcontract

Analysis Batch: O-38108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
99856-B1	Method Blank	Total/NA	water	EPA_625.1	O-38108_P
99856-BS1	Lab Control Sample	Total/NA	water	EPA_625.1	O-38108_P
99856-BS2	Lab Control Sample Dup	Total/NA	water	EPA_625.1	O-38108_P

Prep Batch: O-38108_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
99856-B1	Method Blank	Total/NA	water	EPA_625	
99856-BS1	Lab Control Sample	Total/NA	water	EPA_625	
99856-BS2	Lab Control Sample Dup	Total/NA	water	EPA_625	

Lab Chronicle

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

Job ID: 380-19514-1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-19514-1

Date Collected: 09/01/22 09:57

Matrix: Drinking Water

Date Received: 09/02/22 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			16553	G9MN	EA MON	09/07/22 17:12
Total/NA	Analysis	525.2		1	16825	Q8LA	EA MON	09/09/22 15:45

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 380-19514-1

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

Accreditation/Certification Summary

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

Job ID: 380-19514-1

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

Method Summary

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

Job ID: 380-19514-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
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:

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

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



Sample Summary

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

Job ID: 380-19514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-19514-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	09/01/22 09:57	09/02/22 10:44	HI0000331
380-19514-2	TB:AIEA GULCH WELLS P1 (331-201-TP071)	Water	09/01/22 09:57	09/02/22 10:44	

- 1
- 2
- 3
- 4
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- 8
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- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



Date: 09-21-2022
EMAX Batch No.: 221040

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-19514

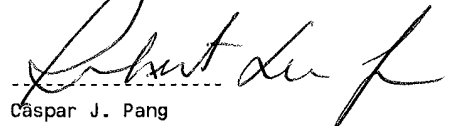
Enclosed is the Laboratory report for samples received on 09/06/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-19514-1	I040-01	09/01/22	WATER	TPH GASOLINE
380-19514-2	I040-02	09/01/22	WATER	TPH DIESEL & MOTOR OIL 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

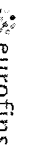


Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016
Phone: 626-386-1100

Chain of Custody Record



221040



Environmental Testing
America

Client Information (Sub Contract Lab)

Client Contact:
Shipping/Receiving

Company:
EMAX Laboratories Inc

Address:
3051 Fujita Street,
Torrance

State, Zip:
CA, 90505

Phone:

Email:

Project Name:
RED-HILL

Site:
Honolulu BWS Sites

Sampler:

Phone:

Lab P/N:
Frank, Debbie L

E-Mail:
Debbie.Frank@et.eurofins.com

Accreditations Required (See note):
State - Hawaii

Carrier Tracking No(s):

State of Origin:
Hawaii

COC No.:

380-20758.1

Page:

Page 1 of 1

Job #:

380-19514-1

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Anchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecylhydrate
U - Acetone
V - MCAA
W - pH 4.5
Y - Trizma
Z - other (specify)

Analysis Requested

Sample Identification - Client ID (Lab ID)

1 AIEA GULCH WELLS PUMP 1 (331-201-T P071) (380-19514-1)

2 TB:AIEA GULCH WELLS P1 (331-201-T P071) (380-19514-2)

Sample Date

9/1/22

9/1/22

Sample Time

09:57

09:57

Sample Type (O=comp, G=grab)

Water

Water

Matrix (W=water, S=solid, O=waste/oil, B=issue, A=air)

Water

Water

Field Filtered Sample (Yes or No)

X

X

Perform MS/MSD (Yes or No)

X

X

SUB (8015 Gas (Purgeable) LL (EAL)) / 8015 Gas (Purgeable) LL (EAL)

X

X

SUB (8015 Diesel LL (EAL) and Motor Oil) / 8015 Diesel LL (EAL) and Motor Oil

X

X

Total Number of Containers

2

2

Special Instructions/Note:

See Attached Instructions

See Attached Instructions

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

Possible Hazard Identification

Unconfirmed

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

Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Method of Shipment:

Empty Kit Relinquished by:

Date/Time:

Company:

Time:

Method of Shipment:

Company:

Relinquished by:

Date/Time:

Company:

Time:

Method of Shipment:

Company:

Relinquished by:

Date/Time:

Company:

Time:

Method of Shipment:

Company:

Relinquished by:

Date/Time:

Company:

Time:

Method of Shipment:

Company:

Custody Seals Intact:

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

REPORT NO: 221040

Page 2 of 23



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 221040 Recipient Jocelyne Solis-Ramus Date 09/06/22 Time 13:40
--	---------------------------	--

COC INSPECTION

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

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<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, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 1.9 °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer:	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	A - S/N _____	B - S/N 210760237	C - S/N _____
			<input checked="" type="checkbox"/> D - S/N 210760272

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

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
2	716	D7	two dates on label - 8/22/22 and 9/1/22	PA
<i>EA 9/8/22</i>				

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

LEGEND:

- Code Description-Sample Management
- D1 Analysis is not indicated in _____
- D2 Analysis mismatch COC vs label
- D3 Sample ID mismatch COC vs label
- D4 Sample ID is not indicated in _____
- D5 Container -[improper] [leaking] [broken]
- D6 Date/Time is not indicated in _____
- D7 Date/Time mismatch COC vs label
- D8 Sample listed in COC is not received
- D9 Sample received is not listed in COC
- D10 No initial/date on corrections in COC/label
- D11 Container count mismatch COC vs received
- D12 Container size mismatch COC vs received

- Code Description-Sample Management
- D13 Out of Holding Time
- D14 Bubble is >6mm
- D15 No trip blank in cooler
- D16 Preservation not indicated in _____
- D17 Preservation mismatch COC vs label
- D18 Insufficient chemical preservative
- D19 Insufficient Sample
- D20 No filtration info for dissolved analysis
- D21 No sample for moisture determination
- D22 _____
- D23 _____
- D24 _____

- Continue to next page.
- Code Description-Sample Management
- R1 Proceed as indicated in COC Label
- R2 Refer to attached instruction
- R3 Cancel the analysis
- R4 Use vial with smallest bubble first
- R5 Log-in with latest sampling date and time+1 min
- R6 Adjust pH as necessary
- R7 Filter and preserved as necessary
- R8 _____
- R9 _____
- R10 _____
- R11 _____
- R12 _____

REVIEWS:

Sample Labeling **Jocelyne Solis-Ramus**
 Date **09/06/22**

SRF **Alpina**
 Date **9/7/22**

PM **EA for RB**
 Date **9/8/22**

REPORT ID: 221040

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

380-19514

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

SDG#: 22I040



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-19514

SDG : 22I040

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

A total of two(2) water samples were received on 09/06/22 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. VG39I04B - 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. VG39I04L/VG39I04C 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 I036-01M/I036-01S. 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.

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SAMPLE RESULTS

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QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 13:34
Project     : 380-19514                   Date Received: 09/06/22
Batch No.   : 221040                      Date Extracted: 09/06/22 13:34
Sample ID   : MBLK1W                      Date Analyzed: 09/06/22 13:34
Lab Samp ID: VG39I04B                    Dilution Factor: 1
Lab File ID: EI06005A                    Matrix: WATER
Ext Btch ID: 22VG39I04                  % Moisture: NA
Calib. Ref.: EI06003A                   Instrument ID: 39
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0350	0.0400	88	60-140

Notes:

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-19514
BATCH NO. : 221040
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W         LCD1W
LAB SAMPLE ID : VG39104B                         VG39104L     VG39104C
LAB FILE ID  : EI06005A                         EI06006A     EI06007A
DATE PREPARED : 09/06/22 13:34                 09/06/22 14:12 09/06/22 14:50
DATE ANALYZED : 09/06/22 13:34                 09/06/22 14:12 09/06/22 14:50
PREP BATCH   : 22VG39104                       22VG39104    22VG39104
CALIBRATION REF: EI06003A                       EI06003A     EI06003A
  
```

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	0.518	104	0.500	0.510	102	2	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0470	118	0.0400	0.0461	115	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 : 380-19402
BATCH NO. : 221036
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-19402-1                         380-19402-1MS
LAB SAMPLE ID : I036-01                           I036-01S
LAB FILE ID  : E106008A                           E106009A
DATE PREPARED : 09/06/22 15:28                    09/06/22 16:05
DATE ANALYZED : 09/06/22 15:28                    09/06/22 16:43
PREP BATCH   : 22VG39104                           22VG39104
CALIBRATION REF: E106003A                           E106003A
  
```

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	0.488	98	0.500	0.509	102	4	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0468	117	0.0400	0.0472	118	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-19514

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22I040



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-19514

SDG : 22I040

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 09/06/22 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. DSI007WB - 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 DSI007WL. 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 22I012-01M/22I012-01S. Refer to Matrix QC summary form for details.

Surrogate

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

Sample Analysis

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

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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/01/22 09:57
Project     : 380-19514                 Date Received: 09/06/22
Batch No.   : 221040                   Date Extracted: 09/06/22 16:00
Sample ID   : 380-19514-1              Date Analyzed: 09/07/22 21:04
Lab Samp ID : 221040-01                 Dilution Factor: 1
Lab File ID : LI07029A                  Matrix: WATER
Ext Btch ID : 22DSI007W                 % Moisture: NA
Calib. Ref. : LI07024A                  Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.027	0.013	
Motor Oil	ND	0.053	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.436	0.530	82	60-130
Hexacosane	0.128	0.132	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 : 940ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/06/22 16:00
Project     : 380-19514                   Date Received: 09/06/22
Batch No.   : 22I040                       Date Extracted: 09/06/22 16:00
Sample ID   : MBLK1W                       Date Analyzed: 09/07/22 15:12
Lab Samp ID: DSI007WB                      Dilution Factor: 1
Lab File ID: LI07010A                      Matrix: WATER
Ext Btch ID: 22DSI007W                    % Moisture: NA
Calib. Ref.: LI07004A                     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	0.349	0.500	70	60-130	
Hexacosane	0.106	0.125	85	60-130	

Notes:
Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1000ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-19514
BATCH NO. : 221040
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSI007WB	DSI007WL
LAB FILE ID	: LI07010A	LI07011A
DATE PREPARED	: 09/06/22 16:00	09/06/22 16:00
DATE ANALYZED	: 09/07/22 15:12	09/07/22 15:30
PREP BATCH	: 22DSI007W	22DSI007W
CALIBRATION REF:	LI07004A	LI07004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----	-----
Diesel	ND	2.50	2.38	95	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----
Bromobenzene	0.500	0.401	80	60-130
Hexacosane	0.125	0.115	92	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-19110
BATCH NO. : 22I012
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-19110-1                         380-19110-1MS  380-19110-1MSD
LAB SAMPLE ID : 22I012-01                         22I012-01M    22I012-01S
LAB FILE ID  : LI07014A                           LI07015A      LI07016A
DATE PREPARED : 09/06/22 16:00                    09/06/22 16:00 09/06/22 16:00
DATE ANALYZED : 09/07/22 16:26                    09/07/22 16:45 09/07/22 17:03
PREP BATCH   : 22DSI007W                           22DSI007W     22DSI007W
CALIBRATION REF: LI07004A                           LI07004A      LI07004A
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.70	2.21	82	2.65	2.22	84	0	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.540	0.400	74	0.530	0.382	72	60-130
Hexacosane	0.135	0.120	89	0.132	0.113	85	60-130

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

September 15, 2022

Debbie Frank
Eurofins Eaton Analytical
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-19514-1
Physis Project ID: 1407003-288

Dear Debbie,

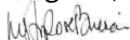
Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 9/6/2022. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,



Misty Mercier
714 602-5320
Extension 202
mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-288

RED-HILL Project # 38001111 Job # 380-19514-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
99857	AIEA GULCH WELLS PUMP	331-201-TP071 (380-19514-1)	9/1/2022	9:57	Samplewater	Not Specified



ABBREVIATIONS and ACRONYMS

QM	Quality Manual
QA	Quality Assurance
QC	Quality Control
MDL	method detection limit
RL	reporting limit
R1	project sample
R2	project sample replicate
MS1	matrix spike
MS2	matrix spike replicate
B1	procedural blank
B2	procedural blank replicate
BS1	blank spike
BS2	blank spike replicate
LCS1	laboratory control spike
LCS2	laboratory control spike replicate
LCM1	laboratory control material
LCM2	laboratory control material replicate
CRM1	certified reference material
CRM2	certified reference material replicate
RPD	relative percent difference
LMW	low molecular weight
HMW	high molecular weight

QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS₁/MS₂, BS₁/BS₂, LCS₁/LCS₂, LCM₁/LCM₂, CRM₁/CRM₂, surrogate spikes and/or replicate project sample analysis (R₁/R₂) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.

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PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
B	analyte was detected in the procedural blank greater than 10 times the MDL
E	analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated
H	sample received and/or analyzed past the recommended holding time
J	analyte was detected at a concentration below the RL and above the MDL, reported value is estimated
N	insufficient sample, analysis could not be performed
M	analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification
SH	analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply
SL	analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply
NH	project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply
Q	analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification
R	Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples

CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported are ND at the RL.

ANALYTICAL REPOR

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Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 99857-R1 AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater Sampled: 01-Sep-22 9:57 Received: 06-Sep-22											
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38108	07-Sep-22	11-Sep-22



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 99857-R1	AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater						Sampled:	01-Sep-22	9:57	Received:	06-Sep-22
(d10-Acenaphthene)	EPA 625.1	% Recovery	95	1			Total		O-38108	07-Sep-22	11-Sep-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	101	1			Total		O-38108	07-Sep-22	11-Sep-22
(d12-Chrysene)	EPA 625.1	% Recovery	100	1			Total		O-38108	07-Sep-22	11-Sep-22
(d12-Perylene)	EPA 625.1	% Recovery	107	1			Total		O-38108	07-Sep-22	11-Sep-22
(d8-Naphthalene)	EPA 625.1	% Recovery	89	1			Total		O-38108	07-Sep-22	11-Sep-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38108	07-Sep-22	11-Sep-22



QUALITY CONTROL REPORT

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Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE SOURCE		ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 99856-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38108		Prepared: 02-Sep-22		Analyzed: 11-Sep-22				
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L							
Sample ID: 99856-BS1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38108		Prepared: 02-Sep-22		Analyzed: 11-Sep-22				
Disalicylidenepropanediamin	Total	33.6	1	0.05	0.1	µg/L	50	0	67	50 - 150%	PASS		
Sample ID: 99856-BS2		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38108		Prepared: 02-Sep-22		Analyzed: 11-Sep-22				
Disalicylidenepropanediamin	Total	39.2	1	0.05	0.1	µg/L	50	0	78	50 - 150%	PASS	15	30 PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE
							LEVEL	RESULT	% LIMITS	% LIMITS	
Sample ID: 99856-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
	Method: EPA 625.1					Batch ID: O-38108	Prepared: 02-Sep-22	Analyzed: 11-Sep-22			
(d10-Acenaphthene)	Total	96	1			% Recovery	100	96	65 - 113%	PASS	
(d10-Phenanthrene)	Total	100	1			% Recovery	100	100	80 - 111%	PASS	
(d12-Chrysene)	Total	92	1			% Recovery	100	92	60 - 139%	PASS	
(d12-Perylene)	Total	101	1			% Recovery	100	101	36 - 161%	PASS	
(d8-Naphthalene)	Total	94	1			% Recovery	100	94	44 - 119%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L					
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L					
Anthracene	Total	ND	1	0.001	0.005	µg/L					
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L					
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L					
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Biphenyl	Total	ND	1	0.001	0.005	µg/L					
Chrysene	Total	ND	1	0.001	0.005	µg/L					
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L					
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L					

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							
Fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Fluorene	Total	ND	1	0.001	0.005	µg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L							
Naphthalene	Total	ND	1	0.001	0.005	µg/L							
Perylene	Total	ND	1	0.001	0.005	µg/L							
Phenanthrene	Total	ND	1	0.001	0.005	µg/L							
Pyrene	Total	ND	1	0.001	0.005	µg/L							

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 99856-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38108			Prepared: 02-Sep-22		Analyzed: 11-Sep-22					
(d10-Acenaphthene)	Total	101	1			% Recovery	100	0	101	65 - 113%	PASS	
(d10-Phenanthrene)	Total	99	1			% Recovery	100	0	99	80 - 111%	PASS	
(d12-Chrysene)	Total	99	1			% Recovery	100	0	99	60 - 139%	PASS	
(d12-Perylene)	Total	107	1			% Recovery	100	0	107	36 - 161%	PASS	
(d8-Naphthalene)	Total	91	1			% Recovery	100	0	91	44 - 119%	PASS	
1-Methylnaphthalene	Total	0.485	1	0.001	0.005	µg/L	0.5	0	97	49 - 117%	PASS	
1-Methylphenanthrene	Total	0.524	1	0.001	0.005	µg/L	0.5	0	105	66 - 127%	PASS	
2,3,5-Trimethylnaphthalene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	57 - 120%	PASS	
2,6-Dimethylnaphthalene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	54 - 117%	PASS	
2-Methylnaphthalene	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	47 - 130%	PASS	
Acenaphthene	Total	0.485	1	0.001	0.005	µg/L	0.5	0	97	53 - 131%	PASS	
Acenaphthylene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	43 - 140%	PASS	
Anthracene	Total	0.483	1	0.001	0.005	µg/L	0.5	0	97	58 - 135%	PASS	
Benz[a]anthracene	Total	0.488	1	0.001	0.005	µg/L	0.5	0	98	55 - 145%	PASS	
Benzo[a]pyrene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	51 - 143%	PASS	
Benzo[b]fluoranthene	Total	0.619	1	0.001	0.005	µg/L	0.5	0	124	46 - 165%	PASS	
Benzo[e]pyrene	Total	0.575	1	0.001	0.005	µg/L	0.5	0	115	42 - 152%	PASS	
Benzo[g,h,i]perylene	Total	0.483	1	0.001	0.005	µg/L	0.5	0	97	63 - 133%	PASS	
Benzo[k]fluoranthene	Total	0.588	1	0.001	0.005	µg/L	0.5	0	118	56 - 145%	PASS	
Biphenyl	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	56 - 119%	PASS	
Chrysene	Total	0.429	1	0.001	0.005	µg/L	0.5	0	86	56 - 141%	PASS	
Dibenz[a,h]anthracene	Total	0.585	1	0.001	0.005	µg/L	0.5	0	117	55 - 150%	PASS	
Dibenzo[a,l]pyrene	Total	0.415	1	0.001	0.005	µg/L	0.5	0	83	50 - 150%	PASS	

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	75 - 113%	PASS		
Fluoranthene	Total	0.524	1	0.001	0.005	µg/L	0.5	0	105	60 - 146%	PASS		
Fluorene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	0.578	1	0.001	0.005	µg/L	0.5	0	116	50 - 151%	PASS		
Naphthalene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	41 - 126%	PASS		
Perylene	Total	0.514	1	0.001	0.005	µg/L	0.5	0	103	48 - 141%	PASS		
Phenanthrene	Total	0.48	1	0.001	0.005	µg/L	0.5	0	96	67 - 127%	PASS		
Pyrene	Total	0.52	1	0.001	0.005	µg/L	0.5	0	104	54 - 156%	PASS		

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc		
							LEVEL	RESULT	%	LIMITS	%	LIMITS			
Sample ID: 99856-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:				
		Method: EPA 625.1			Batch ID: O-38108			Prepared: 02-Sep-22			Analyzed: 11-Sep-22				
(d10-Acenaphthene)	Total	98	1				% Recovery	100	0	98	65 - 113%	PASS	3	30	PASS
(d10-Phenanthrene)	Total	96	1				% Recovery	100	0	96	80 - 111%	PASS	3	30	PASS
(d12-Chrysene)	Total	96	1				% Recovery	100	0	96	60 - 139%	PASS	3	30	PASS
(d12-Perylene)	Total	108	1				% Recovery	100	0	108	36 - 161%	PASS	1	30	PASS
(d8-Naphthalene)	Total	87	1				% Recovery	100	0	87	44 - 119%	PASS	4	30	PASS
1-Methylnaphthalene	Total	0.468	1	0.001	0.005	µg/L		0.5	0	94	49 - 117%	PASS	3	30	PASS
1-Methylphenanthrene	Total	0.526	1	0.001	0.005	µg/L		0.5	0	105	66 - 127%	PASS	0	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.48	1	0.001	0.005	µg/L		0.5	0	96	57 - 120%	PASS	0	30	PASS
2,6-Dimethylnaphthalene	Total	0.469	1	0.001	0.005	µg/L		0.5	0	94	54 - 117%	PASS	2	30	PASS
2-Methylnaphthalene	Total	0.465	1	0.001	0.005	µg/L		0.5	0	93	47 - 130%	PASS	2	30	PASS
Acenaphthene	Total	0.472	1	0.001	0.005	µg/L		0.5	0	94	53 - 131%	PASS	3	30	PASS
Acenaphthylene	Total	0.497	1	0.001	0.005	µg/L		0.5	0	99	43 - 140%	PASS	0	30	PASS
Anthracene	Total	0.473	1	0.001	0.005	µg/L		0.5	0	95	58 - 135%	PASS	2	30	PASS
Benz[a]anthracene	Total	0.499	1	0.001	0.005	µg/L		0.5	0	100	55 - 145%	PASS	2	30	PASS
Benzo[a]pyrene	Total	0.421	1	0.001	0.005	µg/L		0.5	0	84	51 - 143%	PASS	12	30	PASS
Benzo[b]fluoranthene	Total	0.605	1	0.001	0.005	µg/L		0.5	0	121	46 - 165%	PASS	2	30	PASS
Benzo[e]pyrene	Total	0.568	1	0.001	0.005	µg/L		0.5	0	114	42 - 152%	PASS	1	30	PASS
Benzo[g,h,i]perylene	Total	0.487	1	0.001	0.005	µg/L		0.5	0	97	63 - 133%	PASS	0	30	PASS
Benzo[k]fluoranthene	Total	0.583	1	0.001	0.005	µg/L		0.5	0	117	56 - 145%	PASS	1	30	PASS
Biphenyl	Total	0.463	1	0.001	0.005	µg/L		0.5	0	93	56 - 119%	PASS	2	30	PASS
Chrysene	Total	0.418	1	0.001	0.005	µg/L		0.5	0	84	56 - 141%	PASS	2	30	PASS
Dibenz[a,h]anthracene	Total	0.598	1	0.001	0.005	µg/L		0.5	0	120	55 - 150%	PASS	3	30	PASS
Dibenzo[a,l]pyrene	Total	0.412	1	0.001	0.005	µg/L		0.5	0	82	50 - 150%	PASS	1	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Dibenzothiophene	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	75 - 113%	PASS	2	30	PASS
Fluoranthene	Total	0.524	1	0.001	0.005	µg/L	0.5	0	105	60 - 146%	PASS	0	30	PASS
Fluorene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	58 - 131%	PASS	0	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.591	1	0.001	0.005	µg/L	0.5	0	118	50 - 151%	PASS	2	30	PASS
Naphthalene	Total	0.444	1	0.001	0.005	µg/L	0.5	0	89	41 - 126%	PASS	3	30	PASS
Perylene	Total	0.518	1	0.001	0.005	µg/L	0.5	0	104	48 - 141%	PASS	1	30	PASS
Phenanthrene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	67 - 127%	PASS	2	30	PASS
Pyrene	Total	0.524	1	0.001	0.005	µg/L	0.5	0	105	54 - 156%	PASS	1	30	PASS

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PHYSIS

TENTATIVELY IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.
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Sample ID: 99857

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
29.6266	8.2036	1111	Anthracene-D10-	1719-06-8	97
			No TICs were identified in this sample		

Concentration estimated using the response for Anthracene-d10

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Sample ID: Lab Blank Batch O-38108

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
29.6285	8.8334	1111	Anthracene-D10-	1719-06-8	97
			No TICs were detected in this sample		

Concentration estimated using the response for Anthracene-d10

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

Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)

Client Contact: _____
 Shipping/Receiving: _____
 Company: Physics Environmental Laboratories
 Address: 1904 Wright Circle,
 City: Anahaim
 State/Zip: CA, 92806
 Phone: _____
 Email: _____
 Project Name: RED HILL
 Site: Honolulu BWS Sites

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

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

COC No: 380-20759.1
 Page: Page 1 of 1
 Job #: 380-19514-1

Due Date Requested: 9/12/2022
 TAT Requested (days): _____

Analysis Requested

PO #: _____
 WO #: _____
 Project #: 38001111
 SSOV#: _____

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
AIEA GULCH WELLS PUMP 1 (331-201-T-P071) (380-19514-1)	9/1/22	09:57	Water	Water	X	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	2	See Attached Instructions

- Matrix (W-water, S-solid, O-organic, BT-triazine, A-air)
- Preservation Codes:
- A - HCL
 - B - NaOH
 - C - Zn Acetate
 - D - Nitric Acid
 - E - NaHSO4
 - F - MeOH
 - G - Amchlor
 - H - Ascorbic Acid
 - I - Ice
 - J - DI Water
 - K - EDTA
 - L - EDA
 - M - Hexane
 - N - None
 - O - AsNaO2
 - P - Na2CO3
 - Q - Na2SO3
 - R - Na2S2O3
 - S - H2SO4
 - T - TSP Dodecahydrate
 - U - Acetone
 - V - MCAA
 - W - PH 4.5
 - Y - Trizma
 - Z - other (specify)

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

Possible Hazard Identification

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

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

Relinquished by: G. BERNER Date/Time: 09/06/2022 Company: EEA
 Relinquished by: A.L.L. Date/Time: 9-6-22 15:15 Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: 9-6-22 12:15 Company: GEA
 Received by: _____ Date/Time: 9/6/22 15:15 Company: PHYSS

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

Project Iteration ID: 1407003-288
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111
 Job # 380-19514-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: yl
2. Date Received: 9/6/22
3. Time Received: 1515
4. Client Name: Eurofins
5. Courier Information: (Please circle)
 - Client
 - UPS
 - Area Fast
 - DRS
 - FedEx
 - GSO/GLS
 - Ontrac
 - PAMS
 - PHYSIS Driver:
 - i. Start Time: _____
 - ii. End Time: _____
 - iii. Total Mileage: _____
 - iv. Number of Pickups: _____
6. Container Information: (Please put the # of containers or circle none)
 - 1 Cooler
 - ___ Styrofoam Cooler
 - ___ Boxes
 - None
 - ___ Carboy(s)
 - ___ Carboy Trash Can(s)
 - ___ Carboy Cap(s)
 - Other _____
7. What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
8. Randomly Selected Samples Temperature (°C): 2.5 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: RGH

Sample Integrity Upon Receipt:

1. COC(s) included and completely filled out..... Yes / No
2. All sample containers arrived intact..... Yes / No
3. All samples listed on COC(s) are present..... Yes / No
4. Information on containers consistent with information on COC(s)..... Yes / No
5. Correct containers and volume for all analyses indicated..... Yes / No
6. All samples received within method holding time..... Yes / No
7. Correct preservation used for all analyses indicated..... Yes / No
8. Name of sampler included on COC(s)..... Yes / No

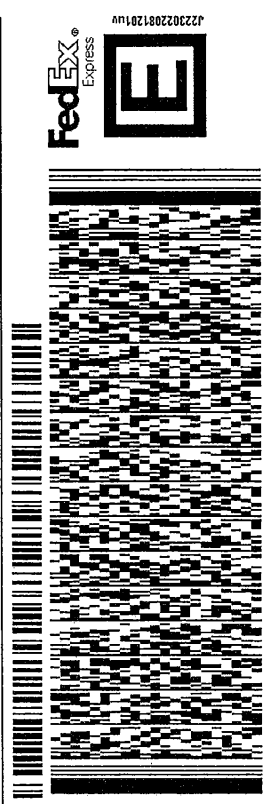
Notes:

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

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

TO **BROOKS**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
 REF (626) 386-1178
 INV PO DEPT

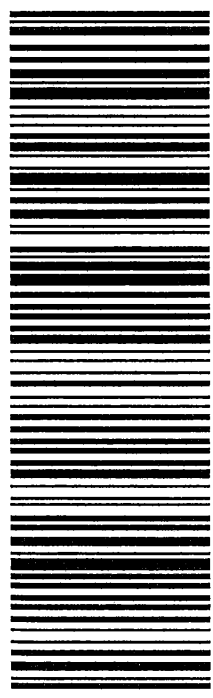
581J1/EC80/FELD



TRK# 7778 2998 2782
 0201

FRI - 02 SEP 10:30A
 PRIORITY OVERNIGHT

WZ WHPA
 CA-US
91016
BUR



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

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-19514-1

Login Number: 19514
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	False	Refer to Job Narrative for details.
COC is filled out in ink and legible.	False	Refer to Job Narrative for details.
COC is filled out with all pertinent information.	False	No COC received.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	

