

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-112168-1

Eurofins Eaton Analytical Pomona

Job Notes

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

Compliance Statement

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

Authorization



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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	10
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	23
Lab Chronicle	24
Certification Summary	25
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	31

Definitions/Glossary

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

Job ID: 380-112168-1

Qualifiers

GC/MS Semi VOA

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

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: RED-HILL

Job ID: 380-112168-1

Job ID: 380-112168-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-112168-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/10/2024 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 2.3°C.

GC/MS Semi VOA

Method 625.1_SIM: The laboratory control sample (LCS) and laboratory control sample (LCSD) for preparation batch 570-479716 and analytical batch 570-482655 recovered outside control limits for the following analytes: Fluorene and Phenanthrene. The LCS/LCSD was re-prep/re-ran on a different instrument. The LCS/LCSD still failed low. HT has expired therefore, no re-extraction. Data excluded due to this QC failure.

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

Gasoline Range Organics

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: The following sample was re-prepared outside of preparation holding time due to confirm initial results: HALAWA SHAFT Viewing Pool (380-112168-1). Data excluded due to this.

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

Detection Summary

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

Job ID: 380-112168-1

Client Sample ID: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-1

No Detections.

Client Sample ID: TB: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-2

No Detections.

- 1
- 2
- 3
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- 9
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- 14
- 15
- 16

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-112168-1

Client Sample ID: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-1

Date Collected: 09/05/24 11:38

Matrix: Drinking Water

Date Received: 09/10/24 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2,4'-DDD	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2,4'-DDE	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2,4'-DDT	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
2-Methylnaphthalene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
4,4'-DDD	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
4,4'-DDE	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
4,4'-DDT	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Acenaphthene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Acenaphthylene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Acetochlor	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Alachlor	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
alpha-BHC	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
alpha-Chlordane	<0.049	^3+	0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Anthracene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:43	1
Atrazine	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Benzo[a]pyrene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:43	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:43	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:43	1
beta-BHC	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		09/11/24 08:39	09/12/24 10:43	1
Bromacil	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Butachlor	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/11/24 08:39	09/12/24 10:43	1
Chlorobenzilate	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Chloroneb	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Chlorpyrifos	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Chrysene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:43	1
delta-BHC	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		09/11/24 08:39	09/12/24 10:43	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Dieldrin	<0.0098	^3+	0.0098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Diethylphthalate	<0.49		0.49	ug/L		09/11/24 08:39	09/12/24 10:43	1
Dimethylphthalate	<0.49		0.49	ug/L		09/11/24 08:39	09/12/24 10:43	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		09/11/24 08:39	09/12/24 10:43	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Endosulfan sulfate	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Endrin	<0.0098		0.0098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Endrin aldehyde	<0.098	^3+	0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
EPTC	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Fluoranthene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1

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Client Sample Results

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

Job ID: 380-112168-1

Client Sample ID: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-1

Date Collected: 09/05/24 11:38

Matrix: Drinking Water

Date Received: 09/10/24 10:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
gamma-Chlordane	<0.049	^3+	0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Heptachlor	<0.0098	^3+	0.0098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Heptachlor epoxide (isomer B)	<0.0098	^3+	0.0098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Isophorone	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Lindane	<0.0098		0.0098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Malathion	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Methoxychlor	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Metolachlor	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Molinate	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Naphthalene	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Parathion	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Phenanthrene	<0.039		0.039	ug/L		09/11/24 08:39	09/12/24 10:43	1
Propachlor	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Pyrene	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Simazine	<0.049		0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Terbacil	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Terbutylazine	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Thiobencarb	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		09/11/24 08:39	09/12/24 10:43	1
trans-Nonachlor	<0.049	^3+	0.049	ug/L		09/11/24 08:39	09/12/24 10:43	1
Trifluralin	<0.098		0.098	ug/L		09/11/24 08:39	09/12/24 10:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	09/11/24 08:39	09/12/24 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	09/11/24 08:39	09/12/24 10:43	1
Perylene-d12	87		70 - 130	09/11/24 08:39	09/12/24 10:43	1
Triphenylphosphate	98		70 - 130	09/11/24 08:39	09/12/24 10:43	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/18/24 02:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134		09/18/24 02:19	1

Client Sample ID: TB: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-2

Date Collected: 09/05/24 11:38

Matrix: Water

Date Received: 09/10/24 10:15

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/18/24 00:00	1

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Client Sample Results

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

Job ID: 380-112168-1

Client Sample ID: TB: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-2

Date Collected: 09/05/24 11:38

Matrix: Water

Date Received: 09/10/24 10:15

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	85		38 - 134		09/18/24 00:00	1

- 1
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- 5
- 6
- 7
- 8
- 9
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- 11
- 12
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- 14
- 15
- 16

Action Limit Summary

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

Job ID: 380-112168-1

Client Sample ID: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098	^3+	ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0098	^3+	ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-112168-1

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)	PRY (70-130)	TPP (70-130)
380-112168-1	HALAWA SHAFT Viewing Pool	95	87	98
380-112168-1 MS	HALAWA SHAFT Viewing Pool	94	96	108

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-112189-O-1-A DU	Duplicate	94	89	98
LCS 380-107803/18-A	Lab Control Sample	93	95	108
MB 380-107803/16-A	Method Blank	93	90	101
MRL 380-107803/17-A	Lab Control Sample	96	87	103

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

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-112168-1	HALAWA SHAFT Viewing Pool	85

Surrogate Legend
 BFB = 4-Bromofluorobenzene (Surr)

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-111916-C-3 MS	Matrix Spike	95
380-111916-F-3 MSD	Matrix Spike Duplicate	95
380-112168-2	TB: HALAWA SHAFT Viewing Pool	85
LCS 570-481747/1009	Lab Control Sample	96
LCSD 570-481747/10	Lab Control Sample Dup	94
MB 570-481747/11	Method Blank	92
MRL 570-481747/1004	Lab Control Sample	89

Surrogate Legend
 BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: MB 380-107803/16-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 107803

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2,4'-DDD	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2,4'-DDE	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2,4'-DDT	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
2-Methylnaphthalene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
4,4'-DDD	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
4,4'-DDE	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
4,4'-DDT	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Acenaphthene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Acenaphthylene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Acetochlor	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Alachlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
alpha-BHC	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
alpha-Chlordane	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Anthracene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:02	1
Atrazine	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Benz(a)anthracene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Benzo[a]pyrene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:02	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:02	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:02	1
beta-BHC	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		09/11/24 08:39	09/12/24 10:02	1
Bromacil	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Butachlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Butylbenzylphthalate	<0.50		0.50	ug/L		09/11/24 08:39	09/12/24 10:02	1
Chlorobenzilate	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Chloroneb	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Chlorpyrifos	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Chrysene	<0.020		0.020	ug/L		09/11/24 08:39	09/12/24 10:02	1
delta-BHC	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		09/11/24 08:39	09/12/24 10:02	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Dieldrin	<0.0099		0.0099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Diethylphthalate	<0.50		0.50	ug/L		09/11/24 08:39	09/12/24 10:02	1
Dimethylphthalate	<0.50		0.50	ug/L		09/11/24 08:39	09/12/24 10:02	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		09/11/24 08:39	09/12/24 10:02	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Endosulfan sulfate	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Endrin	<0.0099		0.0099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Endrin aldehyde	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
EPTC	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: MB 380-107803/16-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 107803

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Fluorene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
gamma-Chlordane	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Heptachlor	<0.0099		0.0099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Hexachlorobenzene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Isophorone	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Lindane	<0.0099		0.0099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Malathion	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Methoxychlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Metolachlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Molinate	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Naphthalene	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Parathion	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Phenanthrene	<0.040		0.040	ug/L		09/11/24 08:39	09/12/24 10:02	1
Propachlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Pyrene	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Simazine	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Terbacil	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Terbutylazine	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Thiobencarb	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		09/11/24 08:39	09/12/24 10:02	1
trans-Nonachlor	<0.050		0.050	ug/L		09/11/24 08:39	09/12/24 10:02	1
Trifluralin	<0.099		0.099	ug/L		09/11/24 08:39	09/12/24 10:02	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	09/11/24 08:39	09/12/24 10:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	09/11/24 08:39	09/12/24 10:02	1
Perylene-d12	90		70 - 130	09/11/24 08:39	09/12/24 10:02	1
Triphenylphosphate	101		70 - 130	09/11/24 08:39	09/12/24 10:02	1

Lab Sample ID: LCS 380-107803/18-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.99	1.92		ug/L		97	70 - 130
2,4'-DDD	1.99	2.06		ug/L		104	70 - 130
2,4'-DDE	1.99	2.03		ug/L		102	70 - 130
2,4'-DDT	1.99	1.83		ug/L		92	70 - 130
2,4-Dinitrotoluene	1.99	1.67		ug/L		84	70 - 130
2,6-Dinitrotoluene	1.99	1.72		ug/L		86	70 - 130
2-Methylnaphthalene	1.99	1.95		ug/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: LCS 380-107803/18-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.99	1.92		ug/L		96	70 - 130
4,4'-DDE	1.99	2.23		ug/L		112	70 - 130
4,4'-DDT	1.99	1.82		ug/L		92	70 - 130
Acenaphthene	1.99	1.92		ug/L		97	70 - 130
Acenaphthylene	1.99	2.05		ug/L		103	70 - 130
Acetochlor	1.99	2.07		ug/L		104	70 - 130
Alachlor	1.99	2.07		ug/L		104	70 - 130
alpha-BHC	1.99	1.89		ug/L		95	70 - 130
alpha-Chlordane	1.99	1.94		ug/L		97	70 - 130
Anthracene	1.99	1.99		ug/L		100	70 - 130
Atrazine	1.99	1.91		ug/L		96	70 - 130
Benz(a)anthracene	1.99	2.13		ug/L		107	70 - 130
Benzo[a]pyrene	1.99	2.06		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.99	2.18		ug/L		109	70 - 130
Benzo[g,h,i]perylene	1.99	1.61		ug/L		81	70 - 130
Benzo[k]fluoranthene	1.99	2.10		ug/L		106	70 - 130
beta-BHC	1.99	1.89		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.98		ug/L		100	70 - 130
Bromacil	1.99	2.09		ug/L		105	70 - 130
Butachlor	1.99	1.96		ug/L		98	70 - 130
Butylbenzylphthalate	1.99	2.03		ug/L		102	70 - 130
Chlorobenzilate	1.99	1.79		ug/L		90	70 - 130
Chloroneb	1.99	2.30		ug/L		115	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.05		ug/L		103	70 - 130
Chlorpyrifos	1.99	1.92		ug/L		96	70 - 130
Chrysene	1.99	2.04		ug/L		102	70 - 130
delta-BHC	1.99	1.85		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.04		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.99	1.67		ug/L		84	70 - 130
Diclorvos (DDVP)	1.99	2.10		ug/L		106	70 - 130
Dieldrin	1.99	1.95		ug/L		98	70 - 130
Diethylphthalate	1.99	2.03		ug/L		102	70 - 130
Dimethylphthalate	1.99	2.02		ug/L		101	70 - 130
Di-n-butyl phthalate	3.98	3.85		ug/L		97	70 - 130
Di-n-octyl phthalate	1.99	1.98		ug/L		100	70 - 130
Endosulfan I (Alpha)	1.99	1.85		ug/L		93	70 - 130
Endosulfan II (Beta)	1.99	1.83		ug/L		92	70 - 130
Endosulfan sulfate	1.99	1.80		ug/L		91	70 - 130
Endrin	1.99	1.97		ug/L		99	70 - 130
Endrin aldehyde	1.99	2.17		ug/L		109	60 - 130
EPTC	1.99	2.04		ug/L		102	70 - 130
Fluoranthene	1.99	2.22		ug/L		112	70 - 130
Fluorene	1.99	2.01		ug/L		101	70 - 130
gamma-Chlordane	1.99	1.93		ug/L		97	70 - 130
Heptachlor	1.99	1.95		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.19		ug/L		110	70 - 130
Hexachlorobenzene	1.99	1.87		ug/L		94	70 - 130
Hexachlorocyclopentadiene	1.99	1.63		ug/L		82	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	1.74		ug/L		88	70 - 130

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QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: LCS 380-107803/18-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.99	1.93		ug/L		97	70 - 130
Lindane	1.99	1.71		ug/L		86	70 - 130
Malathion	1.99	2.01		ug/L		101	70 - 130
Methoxychlor	1.99	1.77		ug/L		89	70 - 130
Metolachlor	1.99	2.08		ug/L		104	70 - 130
Molinate	1.99	2.06		ug/L		103	70 - 130
Naphthalene	1.99	1.83		ug/L		92	70 - 130
Parathion	1.99	2.01		ug/L		101	70 - 130
Pendimethalin (Penoxaline)	1.99	1.84		ug/L		92	70 - 130
Phenanthrene	1.99	1.93		ug/L		97	70 - 130
Propachlor	1.99	2.02		ug/L		101	70 - 130
Pyrene	1.99	1.99		ug/L		100	70 - 130
Simazine	1.99	1.94		ug/L		98	70 - 130
Terbacil	1.99	2.13		ug/L		107	70 - 130
Terbutylazine	1.99	1.84		ug/L		93	70 - 130
Thiobencarb	1.99	2.16		ug/L		108	70 - 130
trans-Nonachlor	1.99	1.98		ug/L		100	70 - 130
Trifluralin	1.99	1.87		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	108		70 - 130

Lab Sample ID: MRL 380-107803/17-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0992	0.105		ug/L		106	50 - 150
2,4'-DDD	0.0992	0.0989	J	ug/L		100	50 - 150
2,4'-DDE	0.0992	0.114		ug/L		115	50 - 150
2,4'-DDT	0.0992	0.107		ug/L		107	50 - 150
2,4-Dinitrotoluene	0.0992	0.112		ug/L		113	50 - 150
2,6-Dinitrotoluene	0.0992	0.102		ug/L		103	50 - 150
2-Methylnaphthalene	0.0992	0.0979	J	ug/L		99	50 - 150
4,4'-DDD	0.0992	0.120		ug/L		121	50 - 150
4,4'-DDE	0.0992	0.116		ug/L		117	50 - 150
4,4'-DDT	0.0992	0.102		ug/L		103	50 - 150
Acenaphthene	0.0992	0.0941	J	ug/L		95	50 - 150
Acenaphthylene	0.0992	0.0931	J	ug/L		94	50 - 150
Acetochlor	0.0992	0.103		ug/L		104	50 - 150
Alachlor	0.0496	0.0558		ug/L		113	50 - 150
alpha-BHC	0.0992	0.0984	J	ug/L		99	50 - 150
alpha-Chlordane	0.0248	0.0871	^3+	ug/L		352	50 - 150
Anthracene	0.0198	0.0210		ug/L		106	50 - 150
Atrazine	0.0496	0.0640		ug/L		129	50 - 150
Benz(a)anthracene	0.0496	0.0566		ug/L		114	50 - 150

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: MRL 380-107803/17-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzo[a]pyrene	0.0198	0.0218		ug/L		110	50 - 150
Benzo[b]fluoranthene	0.0198	0.0182	J	ug/L		92	50 - 150
Benzo[g,h,i]perylene	0.0496	0.0642		ug/L		130	50 - 150
Benzo[k]fluoranthene	0.0198	0.0203		ug/L		102	50 - 150
beta-BHC	0.0992	0.0993		ug/L		100	50 - 150
Bis(2-ethylhexyl) phthalate	0.595	0.579	J	ug/L		97	50 - 150
Bromacil	0.0992	0.124		ug/L		125	50 - 150
Butachlor	0.0496	0.0709		ug/L		143	50 - 150
Butylbenzylphthalate	0.496	0.492	J	ug/L		99	50 - 150
Chlorobenzilate	0.0992	0.0916	J	ug/L		92	50 - 150
Chloroneb	0.0992	0.0653	J	ug/L		66	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0992	0.112		ug/L		113	50 - 150
Chlorpyrifos	0.0496	0.0723		ug/L		146	50 - 150
Chrysene	0.0198	0.0229		ug/L		115	50 - 150
delta-BHC	0.0992	0.0993		ug/L		100	50 - 150
Di(2-ethylhexyl)adipate	0.595	0.596		ug/L		100	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0435	J	ug/L		88	50 - 150
Diclorvos (DDVP)	0.0496	0.0523		ug/L		105	50 - 150
Dieldrin	0.00992	0.0576	^3+	ug/L		580	50 - 150
Diethylphthalate	0.496	0.495	J	ug/L		100	50 - 150
Dimethylphthalate	0.496	0.503		ug/L		101	50 - 150
Di-n-butyl phthalate	0.496	0.496	J	ug/L		100	49 - 243
Di-n-octyl phthalate	0.0992	0.124		ug/L		125	50 - 150
Endosulfan I (Alpha)	0.0992	0.143		ug/L		145	50 - 150
Endosulfan II (Beta)	0.0992	0.136		ug/L		137	50 - 150
Endosulfan sulfate	0.0992	0.0995		ug/L		100	50 - 150
Endrin	0.00992	0.0109		ug/L		110	50 - 150
Endrin aldehyde	0.0992	0.287	^3+	ug/L		289	50 - 150
EPTC	0.0992	0.0933	J	ug/L		94	50 - 150
Fluoranthene	0.0992	0.101		ug/L		102	50 - 150
Fluorene	0.0496	<0.050		ug/L		100	50 - 150
gamma-Chlordane	0.0248	0.0880	^3+	ug/L		355	50 - 150
Heptachlor	0.00992	0.0201	^3+	ug/L		202	50 - 150
Heptachlor epoxide (isomer B)	0.00992	0.0647	^3+	ug/L		653	50 - 150
Hexachlorobenzene	0.0496	0.0468	J	ug/L		94	50 - 150
Hexachlorocyclopentadiene	0.0496	<0.038		ug/L		60	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0436	J	ug/L		88	50 - 150
Isophorone	0.0992	0.112		ug/L		113	50 - 150
Lindane	0.00992	0.0135		ug/L		136	50 - 150
Malathion	0.0992	0.108		ug/L		109	50 - 150
Methoxychlor	0.0496	0.0651		ug/L		131	50 - 150
Metolachlor	0.0496	0.0566		ug/L		114	50 - 150
Molinate	0.0992	0.105		ug/L		106	50 - 150
Naphthalene	0.0992	0.0924	J	ug/L		93	50 - 150
Parathion	0.0992	0.101		ug/L		102	50 - 150
Pendimethalin (Penoxaline)	0.0992	0.104		ug/L		105	50 - 150
Phenanthrene	0.0397	0.0430		ug/L		108	50 - 150
Propachlor	0.0496	0.0495	J	ug/L		100	50 - 150
Pyrene	0.0496	0.0635		ug/L		128	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: MRL 380-107803/17-A
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Simazine	0.0496	0.0642		ug/L		129	50 - 150
Terbacil	0.0992	0.108		ug/L		109	50 - 150
Terbutylazine	0.0992	0.104		ug/L		105	50 - 150
Thiobencarb	0.0992	0.107		ug/L		108	50 - 150
trans-Nonachlor	0.0248	0.0912	^3+	ug/L		368	50 - 150
Trifluralin	0.0992	0.106		ug/L		107	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: 380-112168-1 MS
Matrix: Drinking Water
Analysis Batch: 108007

Client Sample ID: HALAWA SHAFT Viewing Pool
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.98	1.97		ug/L		99	70 - 130
2,4'-DDD	<0.098		1.98	2.11		ug/L		107	70 - 130
2,4'-DDE	<0.098		1.98	2.06		ug/L		104	70 - 130
2,4'-DDT	<0.098		1.98	1.91		ug/L		96	70 - 130
2,4-Dinitrotoluene	<0.098		1.98	1.85		ug/L		93	70 - 130
2,6-Dinitrotoluene	<0.098		1.98	1.92		ug/L		97	70 - 130
2-Methylnaphthalene	<0.098		1.98	1.98		ug/L		100	70 - 130
4,4'-DDD	<0.098		1.98	1.96		ug/L		99	70 - 130
4,4'-DDE	<0.098		1.98	2.26		ug/L		114	70 - 130
4,4'-DDT	<0.098		1.98	1.91		ug/L		96	70 - 130
Acenaphthene	<0.098		1.98	1.95		ug/L		98	70 - 130
Acenaphthylene	<0.098		1.98	2.13		ug/L		107	70 - 130
Acetochlor	<0.098		1.98	2.14		ug/L		108	70 - 130
Alachlor	<0.049		1.98	2.13		ug/L		108	70 - 130
alpha-BHC	<0.098		1.98	1.94		ug/L		98	70 - 130
alpha-Chlordane	<0.049	^3+	1.98	2.02		ug/L		102	70 - 130
Anthracene	<0.020		1.98	1.51		ug/L		76	70 - 130
Atrazine	<0.049		1.98	1.95		ug/L		98	70 - 130
Benz(a)anthracene	<0.049		1.98	2.09		ug/L		105	70 - 130
Benzo[a]pyrene	<0.020		1.98	1.89		ug/L		95	70 - 130
Benzo[b]fluoranthene	<0.020		1.98	2.13		ug/L		107	70 - 130
Benzo[g,h,i]perylene	<0.049		1.98	1.78		ug/L		90	70 - 130
Benzo[k]fluoranthene	<0.020		1.98	2.26		ug/L		114	70 - 130
beta-BHC	<0.098		1.98	1.89		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.98	2.10		ug/L		106	70 - 130
Bromacil	<0.098		1.98	2.14		ug/L		108	70 - 130
Butachlor	<0.049		1.98	2.00		ug/L		101	70 - 130
Butylbenzylphthalate	<0.49		1.98	2.09		ug/L		105	70 - 130
Chlorobenzilate	<0.098		1.98	1.79		ug/L		90	70 - 130
Chloroneb	<0.098		1.98	2.09		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.98	2.11		ug/L		106	70 - 130

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: 380-112168-1 MS

Matrix: Drinking Water

Analysis Batch: 108007

Client Sample ID: HALAWA SHAFT Viewing Pool

Prep Type: Total/NA

Prep Batch: 107803

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorpyrifos	<0.049		1.98	1.91		ug/L		96	70 - 130
Chrysene	<0.020		1.98	2.10		ug/L		106	70 - 130
delta-BHC	<0.098		1.98	1.85		ug/L		93	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.98	2.12		ug/L		107	70 - 130
Dibenz(a,h)anthracene	<0.049		1.98	1.87		ug/L		94	70 - 130
Diclorvos (DDVP)	<0.049		1.98	2.19		ug/L		110	70 - 130
Dieldrin	<0.0098	^3+	1.98	2.02		ug/L		102	70 - 130
Diethylphthalate	<0.49		1.98	2.09		ug/L		105	70 - 130
Dimethylphthalate	<0.49		1.98	2.09		ug/L		105	70 - 130
Di-n-butyl phthalate	<0.98		3.97	3.93		ug/L		99	70 - 130
Di-n-octyl phthalate	<0.098		1.98	2.09		ug/L		105	70 - 130
Endosulfan I (Alpha)	<0.098		1.98	1.91		ug/L		96	70 - 130
Endosulfan II (Beta)	<0.098		1.98	1.95		ug/L		98	70 - 130
Endosulfan sulfate	<0.098		1.98	1.93		ug/L		97	70 - 130
Endrin	<0.0098		1.98	1.96		ug/L		99	70 - 130
Endrin aldehyde	<0.098	^3+	1.98	2.24		ug/L		113	60 - 130
EPTC	<0.098		1.98	2.07		ug/L		104	70 - 130
Fluoranthene	<0.098		1.98	2.26		ug/L		114	70 - 130
Fluorene	<0.049		1.98	2.05		ug/L		103	70 - 130
gamma-Chlordane	<0.049	^3+	1.98	1.99		ug/L		100	70 - 130
Heptachlor	<0.0098	^3+	1.98	1.93		ug/L		97	70 - 130
Heptachlor epoxide (isomer B)	<0.0098	^3+	1.98	2.28		ug/L		115	70 - 130
Hexachlorobenzene	<0.049		1.98	1.92		ug/L		97	70 - 130
Hexachlorocyclopentadiene	<0.049		1.98	1.64		ug/L		83	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.98	1.84		ug/L		93	70 - 130
Isophorone	<0.098		1.98	1.97		ug/L		99	70 - 130
Lindane	<0.0098		1.98	1.75		ug/L		88	70 - 130
Malathion	<0.098		1.98	2.05		ug/L		103	70 - 130
Methoxychlor	<0.049		1.98	1.88		ug/L		95	70 - 130
Metolachlor	<0.049		1.98	2.14		ug/L		108	70 - 130
Molinate	<0.098		1.98	2.10		ug/L		106	70 - 130
Naphthalene	<0.098		1.98	1.85		ug/L		93	70 - 130
Parathion	<0.098		1.98	2.07		ug/L		104	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.98	2.00		ug/L		101	70 - 130
Phenanthrene	<0.039		1.98	1.94		ug/L		98	70 - 130
Propachlor	<0.049		1.98	2.07		ug/L		105	70 - 130
Pyrene	<0.049		1.98	2.02		ug/L		102	70 - 130
Simazine	<0.049		1.98	1.87		ug/L		94	70 - 130
Terbacil	<0.098		1.98	2.19		ug/L		110	70 - 130
Terbutylazine	<0.098		1.98	1.92		ug/L		97	70 - 130
Thiobencarb	<0.098		1.98	2.19		ug/L		110	70 - 130
trans-Nonachlor	<0.049	^3+	1.98	2.01		ug/L		101	70 - 130
Trifluralin	<0.098		1.98	1.98		ug/L		100	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	94		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	108		70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: 380-112189-O-1-A DU
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
2,4'-DDD	<0.097		<0.097		ug/L		NC	20
2,4'-DDE	<0.097		<0.097		ug/L		NC	20
2,4'-DDT	<0.097		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
4,4'-DDD	<0.097		<0.097		ug/L		NC	20
4,4'-DDE	<0.097		<0.097		ug/L		NC	20
4,4'-DDT	<0.097		<0.097		ug/L		NC	20
Acenaphthene	<0.097		<0.097		ug/L		NC	20
Acenaphthylene	<0.097		<0.097		ug/L		NC	20
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048	^3+	<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.097		ug/L		NC	20
Chloroneb	<0.097		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0097	^3+	<0.0097		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097	^3+	<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20

QC Sample Results

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

Job ID: 380-112168-1

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

Lab Sample ID: 380-112189-O-1-A DU
Matrix: Water
Analysis Batch: 108007

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 107803

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048	^3+	<0.048		ug/L		NC	20
Heptachlor	<0.0097	^3+	<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097	^3+	<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.097		ug/L		NC	20
Lindane	<0.0097		<0.0097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.097		ug/L		NC	20
Terbutylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048	^3+	<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20
		DU	DU					
Surrogate	%Recovery	Qualifier	Limits					
2-Nitro-m-xylene	94		70 - 130					
Perylene-d12	89		70 - 130					
Triphenylphosphate	98		70 - 130					

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-481747/11
Matrix: Water
Analysis Batch: 481747

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			09/17/24 17:23	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		38 - 134				09/17/24 17:23	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-112168-1

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-481747/1009
Matrix: Water
Analysis Batch: 481747

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	357		ug/L		89	78 - 120
Surrogate		LCS %Recovery	LCS Qualifier				Limits
4-Bromofluorobenzene (Surr)		96					38 - 134

Lab Sample ID: LCSD 570-481747/10
Matrix: Water
Analysis Batch: 481747

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	368		ug/L		92	78 - 120	3	10
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
4-Bromofluorobenzene (Surr)		94					38 - 134		

Lab Sample ID: MRL 570-481747/1004
Matrix: Water
Analysis Batch: 481747

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	12.5		ug/L		125	50 - 150
Surrogate		MRL %Recovery	MRL Qualifier				Limits
4-Bromofluorobenzene (Surr)		89					38 - 134

Lab Sample ID: 380-111916-C-3 MS
Matrix: Water
Analysis Batch: 481747

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	365		ug/L		91	68 - 122
Surrogate		MS %Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		95							38 - 134

Lab Sample ID: 380-111916-F-3 MSD
Matrix: Water
Analysis Batch: 481747

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	364		ug/L		91	68 - 122	0	18

QC Sample Results

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

Job ID: 380-112168-1

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 380-111916-F-3 MSD
Matrix: Water
Analysis Batch: 481747

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	95		38 - 134

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QC Association Summary

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

Job ID: 380-112168-1

GC/MS Semi VOA

Prep Batch: 107803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-112168-1	HALAWA SHAFT Viewing Pool	Total/NA	Drinking Water	525.2	
MB 380-107803/16-A	Method Blank	Total/NA	Water	525.2	
LCS 380-107803/18-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-107803/17-A	Lab Control Sample	Total/NA	Water	525.2	
380-112168-1 MS	HALAWA SHAFT Viewing Pool	Total/NA	Drinking Water	525.2	
380-112189-O-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 108007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-112168-1	HALAWA SHAFT Viewing Pool	Total/NA	Drinking Water	525.2	107803
MB 380-107803/16-A	Method Blank	Total/NA	Water	525.2	107803
LCS 380-107803/18-A	Lab Control Sample	Total/NA	Water	525.2	107803
MRL 380-107803/17-A	Lab Control Sample	Total/NA	Water	525.2	107803
380-112168-1 MS	HALAWA SHAFT Viewing Pool	Total/NA	Drinking Water	525.2	107803
380-112189-O-1-A DU	Duplicate	Total/NA	Water	525.2	107803

GC VOA

Analysis Batch: 481747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-112168-1	HALAWA SHAFT Viewing Pool	Total/NA	Drinking Water	8015B GRO LL	
380-112168-2	TB: HALAWA SHAFT Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-481747/11	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-481747/1009	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-481747/10	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-481747/1004	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-111916-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-111916-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

Lab Chronicle

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

Job ID: 380-112168-1

Client Sample ID: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-1

Date Collected: 09/05/24 11:38

Matrix: Drinking Water

Date Received: 09/10/24 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			107803	OTM3	EA POM	09/11/24 08:39
Total/NA	Analysis	525.2		1	108007	UPAC	EA POM	09/12/24 10:43
Total/NA	Analysis	8015B GRO LL		1	481747	A9VE	EET CAL 4	09/18/24 02:19

Client Sample ID: TB: HALAWA SHAFT Viewing Pool

Lab Sample ID: 380-112168-2

Date Collected: 09/05/24 11:38

Matrix: Water

Date Received: 09/10/24 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	481747	A9VE	EET CAL 4	09/18/24 00:00

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

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



Accreditation/Certification Summary

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

Job ID: 380-112168-1

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

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	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
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	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
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	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-112168-1

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

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- 16

Method Summary

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

Job ID: 380-112168-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM

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:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

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

Sample Summary

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

Job ID: 380-112168-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-112168-1	HALAWA SHAFT Viewing Pool	Drinking Water	09/05/24 11:38	09/10/24 10:15
380-112168-2	TB: HALAWA SHAFT Viewing Pool	Water	09/05/24 11:38	09/10/24 10:15

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Client Information Dr Ron Fenstermacher +1 808 748 5840 PWSID:		Lab PM Arada Rachelle E-Mail Rachelle.Arada@eurofins.com	Carrier Tracking No(s) 380-28005-2757 1 State of Origin:	COC No: 380-28005-2757 1 Page: Page 1 of 1 Job #:
Due Date Requested TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: C20525101 exp 05312023 WC #: RFNSTEMACHER@hbws.org Project #: 38001111 SSOW#:		Analysis Requested 533 - All Analytes 537 1_DM_PREC 537 1 Full List 525 2_PREC - (MOD) 525plus Plus TICs 8015B_DR0_LL_CS HNL Ranges C10-C24/C24-C36/C8-C18 8015B_GRO_LL - (MOD) GRO 825 1_625 1_SIM Perform MS/MSD (Yes or No)		
City & County of Honolulu Address: 630 South Beretania Street Chemistry Lab City: Honolulu State, Zip: HI, 96843 Phone: 808-748-5091(Tel) Email: RFNSTEMACHER@hbws.org Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill Site: Hawaii		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> RA <input type="checkbox"/> O <input type="checkbox"/> DA <input type="checkbox"/> Y <input type="checkbox"/> I Total Number of Containers:		
Sample Identification Halawa Shaft Viewing Pool Halawa Shaft Viewing Pool (Matrix Spike) Halawa Shaft Viewing Pool (Matrix Spike Duplicate) TB: Halawa Shaft Viewing Pool		Sample Date 5-Sep-2024 5-Sep-2024	Sample Time 1138 1138	Matrix (W=water, S=solid, O=soil, A=air) Water Water Water Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Empty Kit Relinquished by:		Method of Shipment: FED EX Date/Time: 09/25/2024 1402 Received by: HBWS Date/Time: 09/10/2024 10:15 Company: HBWS Company:		
Relinquished by:		Date/Time: 09/25/2024 1402 Received by: HBWS Date/Time: 09/10/2024 10:15 Company: HBWS Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: (75A) 0.8°-0.1°-0.7° (2) 2.4°-0.1°-2.3° (6) 6.1°-1.0°-1.5°		



Eurofins Eaton Analytical Pomona

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

Chain of Custody Record



eurofins

Loc: 380

EI **112168**

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Arada, Rachelle		Carrier Tracking No(s):		COC No: 380-151613.1																																																																		
Client Contact: Shipping/Receiving		Phone:		E-Mail: Rachelle.Arada@et.eurofins.com		State of Origin: Hawaii		Page: Page 1 of 1																																																																		
Company: Eurofins Environment Testing Southwest				Accreditations Required (See note): State - Hawaii				Job #: 380-112168-1																																																																		
Address: 2841 Dow Avenue, Suite 100		Due Date Requested: 9/23/2024		<table border="1"> <thead> <tr> <th colspan="10">Analysis Requested</th> </tr> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>8015B_DRO_LL_C5/3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18</th> <th>625.1_SIMI625_Prep (MOD) Extended PAH List</th> <th>8015B_GRO_LL6030C (MOD) GRO</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Total Number of containers</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Analysis Requested										Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO_LL_C5/3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	625.1_SIMI625_Prep (MOD) Extended PAH List	8015B_GRO_LL6030C (MOD) GRO						Total Number of containers			X	X	X						7					X						2																							Preservation Codes: -	
Analysis Requested																																																																										
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO_LL_C5/3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	625.1_SIMI625_Prep (MOD) Extended PAH List					8015B_GRO_LL6030C (MOD) GRO						Total Number of containers																																																												
		X	X					X						7																																																												
								X						2																																																												
City: Tustin		TAT Requested (days):		Project Name: RED-HILL		Project #: 38001111		Other:																																																																		
State, Zip: CA, 92780		PO #:		Site: Honolulu BWS Sites		SSOW#:																																																																				
Phone: 714-895-5494(Tel)		WO #:		Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time																																																																		
Email:				Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:																																																																		
Special Instructions/Note:																																																																										
HALAWA SHAFT (331-241-TP401) (380-112168-1)		9/5/24		11:38 Hawaiian		G		Water		7 initial volume (500ml) and final volume (2ml). MRLs are needed.																																																																
TB: HALAWA SHAFT (331-241-TP401) (380-112168-2)		9/5/24		11:38 Hawaiian		G		Water		2 MRLs are needed.																																																																



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

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 9/10/24 15:03		Company: <i>[Signature]</i>		Received by: David Hidalgo	
Relinquished by: <i>[Signature]</i>		Date/Time: 9-10-24 16:14		Company: WayPoint		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.2 / 1.2 Sc12			



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-112168-1

Login Number: 112168

List Number: 1

Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-112168-1

Login Number: 112168

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 09/10/24 05:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

