

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Weekly: Halawa Shaft Viewing Pool

JOB NUMBER

380-160178-1

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Definitions/Glossary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
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.

GC Semi VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-160178-1

Job ID: 380-160178-1

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Job Narrative 380-160178-1

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 7/11/2025 9:34 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 time was 2.4°C.

GC/MS Semi VOA

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-597175. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-597175. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

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: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

☐ No Detections.

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-2

☐ No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2,4'-DDD	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2,4'-DDE	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2,4'-DDT	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2,4-Dinitrotoluene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2,6-Dinitrotoluene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
2-Methylnaphthalene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
4,4'-DDD	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
4,4'-DDE	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
4,4'-DDT	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Acenaphthene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Acenaphthylene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Acetochlor	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Alachlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
alpha-BHC	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
alpha-Chlordane	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Anthracene	<0.019		0.019	ug/L		07/14/25 14:35	07/15/25 23:21	1
Atrazine	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Benz(a)anthracene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Benzo[a]pyrene	<0.019		0.019	ug/L		07/14/25 14:35	07/15/25 23:21	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		07/14/25 14:35	07/15/25 23:21	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		07/14/25 14:35	07/15/25 23:21	1
beta-BHC	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		07/14/25 14:35	07/15/25 23:21	1
Bromacil	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Butachlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Butylbenzylphthalate	<0.48		0.48	ug/L		07/14/25 14:35	07/15/25 23:21	1
Chlorobenzilate	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Chloroneb	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Chlorothalonil (Draconil, Bravo)	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Chlorpyrifos	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Chrysene	<0.019		0.019	ug/L		07/14/25 14:35	07/15/25 23:21	1
delta-BHC	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		07/14/25 14:35	07/15/25 23:21	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Dieldrin	<0.0096		0.0096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Diethylphthalate	<0.48		0.48	ug/L		07/14/25 14:35	07/15/25 23:21	1
Dimethylphthalate	<0.48		0.48	ug/L		07/14/25 14:35	07/15/25 23:21	1
Di-n-butyl phthalate	<0.96		0.96	ug/L		07/14/25 14:35	07/15/25 23:21	1
Di-n-octyl phthalate	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Endosulfan I (Alpha)	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Endosulfan II (Beta)	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Endosulfan sulfate	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Endrin	<0.0096		0.0096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Endrin aldehyde	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
EPTC	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Fluoranthene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1

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Client Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
gamma-Chlordane	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Heptachlor	<0.0096		0.0096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Heptachlor epoxide (isomer B)	<0.0096		0.0096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Hexachlorobenzene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Isophorone	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Lindane	<0.0096		0.0096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Malathion	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Methoxychlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Metolachlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Molinate	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Naphthalene	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Parathion	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Pendimethalin (Penoxaline)	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Phenanthrene	<0.038		0.038	ug/L		07/14/25 14:35	07/15/25 23:21	1
Propachlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Pyrene	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Simazine	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Terbacil	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Terbutylazine	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Thiobencarb	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		07/14/25 14:35	07/15/25 23:21	1
trans-Nonachlor	<0.048		0.048	ug/L		07/14/25 14:35	07/15/25 23:21	1
Trifluralin	<0.096		0.096	ug/L		07/14/25 14:35	07/15/25 23:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/14/25 14:35	07/15/25 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	100		70 - 130	07/14/25 14:35	07/15/25 23:21	1
Perylene-d12	91		70 - 130	07/14/25 14:35	07/15/25 23:21	1
Triphenylphosphate	101		70 - 130	07/14/25 14:35	07/15/25 23:21	1

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
2-Methylnaphthalene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Acenaphthene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Acenaphthylene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Anthracene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Benzo[a]anthracene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Benzo[a]pyrene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Chrysene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Fluoranthene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1

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Client Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Naphthalene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Phenanthrene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1
Pyrene	<0.19		0.19	ug/L		07/15/25 05:23	07/23/25 10:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		28 - 127	07/15/25 05:23	07/23/25 10:10	1
2-Fluorobiphenyl (Surr)	78		31 - 120	07/15/25 05:23	07/23/25 10:10	1
2-Fluorophenol (Surr)	39		17 - 120	07/15/25 05:23	07/23/25 10:10	1
Nitrobenzene-d5 (Surr)	76		27 - 120	07/15/25 05:23	07/23/25 10:10	1
Phenol-d6 (Surr)	23		10 - 120	07/15/25 05:23	07/23/25 10:10	1
p-Terphenyl-d14 (Surr)	80		45 - 120	07/15/25 05:23	07/23/25 10:10	1

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/15/25 05:23	07/24/25 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	70		33 - 139	07/15/25 05:23	07/24/25 15:26	1
2-Fluorobiphenyl (Surr)	74		33 - 126	07/15/25 05:23	07/24/25 15:26	1
2-Fluorophenol (Surr)	35		12 - 120	07/15/25 05:23	07/24/25 15:26	1
Nitrobenzene-d5 (Surr)	79		36 - 120	07/15/25 05:23	07/24/25 15:26	1
Phenol-d6 (Surr)	17		10 - 120	07/15/25 05:23	07/24/25 15:26	1
p-Terphenyl-d14 (Surr)	72		47 - 131	07/15/25 05:23	07/24/25 15:26	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			07/13/25 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		38 - 134		07/13/25 19:25	1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		07/14/25 10:41	07/19/25 05:42	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		07/14/25 10:41	07/19/25 05:42	1
C8-C18	<25		25	ug/L		07/14/25 10:41	07/19/25 05:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 130	07/14/25 10:41	07/19/25 05:42	1

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-2

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

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			07/13/25 20:42	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-2

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		38 - 134		07/13/25 20:42	1

Action Limit Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

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	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0096		ug/L	2	0.0096	525.2	Total/NA
Heptachlor	<0.0096		ug/L	0.4	0.0096	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0096		ug/L	0.2	0.0096	525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L	1	0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50	0.048	525.2	Total/NA
Lindane	<0.0096		ug/L	0.2	0.0096	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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)				
380-159985-X-1-B DU	Duplicate	99	85	100				
380-160125-AG-1-B MS	Matrix Spike	100	87	103				
380-160178-1	HALAWA SHAFT VIEWING POOL	100	91	101				
LCS 380-162709/23-A	Lab Control Sample	98	94	104				
LCSD 380-162709/24-A	Lab Control Sample Dup	100	95	104				
MB 380-162709/21-A	Method Blank	98	84	101				
MRL 380-162709/22-A	Lab Control Sample	97	86	101				
Surrogate Legend								
2NMX = 2-Nitro-m-xylene								
PRY = Perylene-d12								
TPP = Triphenylphosphate								

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)							
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHD14 (47-131)		
380-160178-1	HALAWA SHAFT VIEWING POC	70	74	35	79	17	72		
MB 570-597175/1-A	Method Blank	68	73	42	80	23	69		
Surrogate Legend									
TBP = 2,4,6-Tribromophenol (Surr)									
FBP = 2-Fluorobiphenyl (Surr)									
2FP = 2-Fluorophenol (Surr)									
NBZ = Nitrobenzene-d5 (Surr)									
PHL6 = Phenol-d6 (Surr)									
TPHD14 = p-Terphenyl-d14 (Surr)									

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)							
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHD14 (45-120)		
380-160178-1	HALAWA SHAFT VIEWING POC	91	78	39	76	23	80		
LCS 570-597175/2-A	Lab Control Sample	88	84	58	72	36	87		
LCSD 570-597175/3-A	Lab Control Sample Dup	86	86	58	72	37	87		
MB 570-597175/1-A	Method Blank	83	76	45	76	27	81		
Surrogate Legend									
TBP = 2,4,6-Tribromophenol (Surr)									
FBP = 2-Fluorobiphenyl (Surr)									
2FP = 2-Fluorophenol (Surr)									
NBZ = Nitrobenzene-d5 (Surr)									
PHL6 = Phenol-d6 (Surr)									
TPHD14 = p-Terphenyl-d14 (Surr)									

Surrogate Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-158440-C-1 MS	Matrix Spike	86
380-158440-C-1 MSD	Matrix Spike Duplicate	85
380-160178-1	HALAWA SHAFT VIEWING POOL	72
380 160178 2	TB: HALAWA SHAFT VIEWING POOL	71
LCS 570-596498/4	Lab Control Sample	78
LCSD 570-596498/5	Lab Control Sample Dup	83
MB 570-596498/6	Method Blank	66
MRL 570-596498/3	Lab Control Sample	66
Surrogate Legend		
BFB = 4-Bromofluorobenzene (Surr)		

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-159486-B-1-B MS	Matrix Spike	111
380-159486-B-1-C MSD	Matrix Spike Duplicate	109
380-160178-1	HALAWA SHAFT VIEWING POOL	89
LCS 570-596824/2-A	Lab Control Sample	105
LCSD 570-596824/3-A	Lab Control Sample Dup	101
MB 570-596824/1-A	Method Blank	92
MRL 570-596824/4-A	Lab Control Sample	94
Surrogate Legend		
OTCSN = n-Octacosane (Surr)		

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-162709/21-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 162709

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2,4'-DDD	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2,4'-DDE	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2,4'-DDT	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
2-Methylnaphthalene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
4,4'-DDD	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
4,4'-DDE	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
4,4'-DDT	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Acenaphthene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Acenaphthylene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Acetochlor	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Alachlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
alpha-BHC	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
alpha-Chlordane	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Anthracene	<0.020		0.020	ug/L		07/14/25 14:35	07/15/25 16:38	1
Atrazine	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Benz(a)anthracene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Benzo[a]pyrene	<0.020		0.020	ug/L		07/14/25 14:35	07/15/25 16:38	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		07/14/25 14:35	07/15/25 16:38	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		07/14/25 14:35	07/15/25 16:38	1
beta-BHC	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		07/14/25 14:35	07/15/25 16:38	1
Bromacil	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Butachlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Butylbenzylphthalate	<0.49		0.49	ug/L		07/14/25 14:35	07/15/25 16:38	1
Chlorobenzilate	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Chloroneb	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Chlorpyrifos	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Chrysene	<0.020		0.020	ug/L		07/14/25 14:35	07/15/25 16:38	1
delta-BHC	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		07/14/25 14:35	07/15/25 16:38	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Dieldrin	<0.0098		0.0098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Diethylphthalate	<0.49		0.49	ug/L		07/14/25 14:35	07/15/25 16:38	1
Dimethylphthalate	<0.49		0.49	ug/L		07/14/25 14:35	07/15/25 16:38	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		07/14/25 14:35	07/15/25 16:38	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Endosulfan sulfate	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Endrin	<0.0098		0.0098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Endrin aldehyde	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
EPTC	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1

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QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-162709/21-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 162709

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Fluorene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
gamma-Chlordane	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Heptachlor	<0.0098		0.0098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Hexachlorobenzene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Isophorone	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Lindane	<0.0098		0.0098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Malathion	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Methoxychlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Metolachlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Molinate	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Naphthalene	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Parathion	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Phenanthrene	<0.039		0.039	ug/L		07/14/25 14:35	07/15/25 16:38	1
Propachlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Pyrene	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Simazine	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Terbacil	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Terbutylazine	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Thiobencarb	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		07/14/25 14:35	07/15/25 16:38	1
trans-Nonachlor	<0.049		0.049	ug/L		07/14/25 14:35	07/15/25 16:38	1
Trifluralin	<0.098		0.098	ug/L		07/14/25 14:35	07/15/25 16:38	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	2.02	T J N	ug/L		2.73	124-18-5	07/14/25 14:35	07/15/25 16:38	1
9-Octadecenamide, (Z)-	3.09	T J N	ug/L		7.87	301-02-0	07/14/25 14:35	07/15/25 16:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	07/14/25 14:35	07/15/25 16:38	1
Perylene-d12	84		70 - 130	07/14/25 14:35	07/15/25 16:38	1
Triphenylphosphate	101		70 - 130	07/14/25 14:35	07/15/25 16:38	1

Lab Sample ID: LCS 380-162709/23-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	1.94		ug/L		99	70 - 130
2,4'-DDD	1.97	2.11		ug/L		107	70 - 130
2,4'-DDE	1.97	1.98		ug/L		100	70 - 130
2,4'-DDT	1.97	2.01		ug/L		102	70 - 130
2,4-Dinitrotoluene	1.97	1.96		ug/L		100	70 - 130
2,6-Dinitrotoluene	1.97	1.88		ug/L		95	70 - 130

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QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-162709/23-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	1.97	1.97		ug/L		100	70 - 130
4,4'-DDD	1.97	2.01		ug/L		102	70 - 130
4,4'-DDE	1.97	2.09		ug/L		106	70 - 130
4,4'-DDT	1.97	1.97		ug/L		100	70 - 130
Acenaphthene	1.97	2.06		ug/L		105	70 - 130
Acenaphthylene	1.97	1.94		ug/L		98	70 - 130
Acetochlor	1.97	2.05		ug/L		104	70 - 130
Alachlor	1.97	2.28		ug/L		116	70 - 130
alpha-BHC	1.97	2.11		ug/L		107	70 - 130
alpha-Chlordane	1.97	1.94		ug/L		98	70 - 130
Anthracene	1.97	1.81		ug/L		92	70 - 130
Atrazine	1.97	2.13		ug/L		108	70 - 130
Benz(a)anthracene	1.97	2.03		ug/L		103	70 - 130
Benzo[a]pyrene	1.97	2.04		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.97	2.09		ug/L		106	70 - 130
Benzo[g,h,i]perylene	1.97	1.98		ug/L		101	70 - 130
Benzo[k]fluoranthene	1.97	2.04		ug/L		104	70 - 130
beta-BHC	1.97	2.13		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	1.96		ug/L		100	70 - 130
Bromacil	1.97	2.09		ug/L		106	70 - 130
Butachlor	1.97	2.10		ug/L		107	70 - 130
Butylbenzylphthalate	1.97	2.34		ug/L		119	70 - 130
Chlorobenzilate	1.97	2.07		ug/L		105	70 - 130
Chloroneb	1.97	2.04		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	2.00		ug/L		102	70 - 130
Chlorpyrifos	1.97	2.16		ug/L		110	70 - 130
Chrysene	1.97	2.01		ug/L		102	70 - 130
delta-BHC	1.97	2.07		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.25		ug/L		114	70 - 130
Dibenz(a,h)anthracene	1.97	2.00		ug/L		102	70 - 130
Diclorvos (DDVP)	1.97	2.13		ug/L		108	70 - 130
Dieldrin	1.97	2.14		ug/L		109	70 - 130
Diethylphthalate	1.97	2.20		ug/L		112	70 - 130
Dimethylphthalate	1.97	2.17		ug/L		110	70 - 130
Di-n-butyl phthalate	3.94	4.52		ug/L		115	70 - 130
Di-n-octyl phthalate	1.97	1.90		ug/L		97	70 - 130
Endosulfan I (Alpha)	1.97	2.13		ug/L		108	70 - 130
Endosulfan II (Beta)	1.97	2.12		ug/L		108	70 - 130
Endosulfan sulfate	1.97	2.10		ug/L		106	70 - 130
Endrin	1.97	2.18		ug/L		111	70 - 130
Endrin aldehyde	1.97	2.01		ug/L		102	60 - 130
EPTC	1.97	2.15		ug/L		109	70 - 130
Fluoranthene	1.97	2.07		ug/L		105	70 - 130
Fluorene	1.97	2.12		ug/L		108	70 - 130
gamma-Chlordane	1.97	1.95		ug/L		99	70 - 130
Heptachlor	1.97	2.09		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.12		ug/L		108	70 - 130
Hexachlorobenzene	1.97	1.96		ug/L		99	70 - 130
Hexachlorocyclopentadiene	1.97	2.05		ug/L		104	70 - 130

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QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-162709/23-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	1.97	1.99		ug/L		101	70 - 130
Isophorone	1.97	2.06		ug/L		105	70 - 130
Lindane	1.97	2.17		ug/L		110	70 - 130
Malathion	1.97	2.06		ug/L		105	70 - 130
Methoxychlor	1.97	1.99		ug/L		101	70 - 130
Metolachlor	1.97	2.14		ug/L		108	70 - 130
Molinate	1.97	2.22		ug/L		113	70 - 130
Naphthalene	1.97	1.93		ug/L		98	70 - 130
Parathion	1.97	2.09		ug/L		106	70 - 130
Pendimethalin (Penoxaline)	1.97	2.03		ug/L		103	70 - 130
Phenanthrene	1.97	2.02		ug/L		103	70 - 130
Propachlor	1.97	2.26		ug/L		115	70 - 130
Pyrene	1.97	2.24		ug/L		114	70 - 130
Simazine	1.97	2.05		ug/L		104	70 - 130
Terbacil	1.97	2.14		ug/L		109	70 - 130
Terbutylazine	1.97	2.05		ug/L		104	70 - 130
Thiobencarb	1.97	2.08		ug/L		105	70 - 130
trans-Nonachlor	1.97	1.93		ug/L		98	70 - 130
Trifluralin	1.97	1.88		ug/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: LCSD 380-162709/24-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.97	1.97		ug/L		100	70 - 130	1	20
2,4'-DDD	1.97	2.13		ug/L		108	70 - 130	1	20
2,4'-DDE	1.97	1.98		ug/L		101	70 - 130	0	20
2,4'-DDT	1.97	2.01		ug/L		102	70 - 130	0	20
2,4-Dinitrotoluene	1.97	2.09		ug/L		106	70 - 130	6	20
2,6-Dinitrotoluene	1.97	2.03		ug/L		103	70 - 130	8	20
2-Methylnaphthalene	1.97	1.95		ug/L		99	70 - 130	1	20
4,4'-DDD	1.97	2.04		ug/L		103	70 - 130	1	20
4,4'-DDE	1.97	2.12		ug/L		108	70 - 130	2	20
4,4'-DDT	1.97	2.04		ug/L		104	70 - 130	4	20
Acenaphthene	1.97	2.05		ug/L		104	70 - 130	0	20
Acenaphthylene	1.97	2.05		ug/L		104	70 - 130	6	20
Acetochlor	1.97	2.08		ug/L		106	70 - 130	1	20
Alachlor	1.97	2.30		ug/L		117	70 - 130	1	20
alpha-BHC	1.97	2.09		ug/L		106	70 - 130	1	20
alpha-Chlordane	1.97	1.95		ug/L		99	70 - 130	1	20
Anthracene	1.97	1.78		ug/L		91	70 - 130	2	20
Atrazine	1.97	2.14		ug/L		108	70 - 130	0	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 380-162709/24-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benz(a)anthracene	1.97	2.07		ug/L		105	70 - 130	2	20
Benzo[a]pyrene	1.97	2.04		ug/L		103	70 - 130	0	20
Benzo[b]fluoranthene	1.97	2.05		ug/L		104	70 - 130	2	20
Benzo[g,h,i]perylene	1.97	1.97		ug/L		100	70 - 130	1	20
Benzo[k]fluoranthene	1.97	2.06		ug/L		104	70 - 130	1	20
beta-BHC	1.97	2.19		ug/L		111	70 - 130	2	20
Bis(2-ethylhexyl) phthalate	1.97	2.06		ug/L		105	70 - 130	5	20
Bromacil	1.97	2.21		ug/L		112	70 - 130	6	20
Butachlor	1.97	2.14		ug/L		109	70 - 130	2	20
Butylbenzylphthalate	1.97	2.36		ug/L		120	70 - 130	1	20
Chlorobenzilate	1.97	2.10		ug/L		107	70 - 130	1	20
Chloroneb	1.97	2.08		ug/L		105	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)	1.97	2.01		ug/L		102	70 - 130	0	20
Chlorpyrifos	1.97	2.17		ug/L		110	70 - 130	1	20
Chrysene	1.97	2.00		ug/L		102	70 - 130	0	20
delta-BHC	1.97	2.07		ug/L		105	70 - 130	0	20
Di(2-ethylhexyl)adipate	1.97	2.33		ug/L		118	70 - 130	4	20
Dibenz(a,h)anthracene	1.97	1.98		ug/L		100	70 - 130	1	20
Diclorvos (DDVP)	1.97	2.28		ug/L		116	70 - 130	7	20
Dieldrin	1.97	2.13		ug/L		108	70 - 130	0	20
Diethylphthalate	1.97	2.23		ug/L		113	70 - 130	1	20
Dimethylphthalate	1.97	2.24		ug/L		113	70 - 130	3	20
Di-n-butyl phthalate	3.94	4.68		ug/L		119	70 - 130	4	20
Di-n-octyl phthalate	1.97	2.00		ug/L		102	70 - 130	5	20
Endosulfan I (Alpha)	1.97	2.11		ug/L		107	70 - 130	1	20
Endosulfan II (Beta)	1.97	2.11		ug/L		107	70 - 130	0	20
Endosulfan sulfate	1.97	2.12		ug/L		108	70 - 130	1	20
Endrin	1.97	2.13		ug/L		108	70 - 130	2	20
Endrin aldehyde	1.97	1.95		ug/L		99	60 - 130	3	20
EPTC	1.97	2.18		ug/L		110	70 - 130	1	20
Fluoranthene	1.97	2.05		ug/L		104	70 - 130	1	20
Fluorene	1.97	2.16		ug/L		109	70 - 130	2	20
gamma-Chlordane	1.97	1.91		ug/L		97	70 - 130	2	20
Heptachlor	1.97	2.09		ug/L		106	70 - 130	0	20
Heptachlor epoxide (isomer B)	1.97	2.04		ug/L		103	70 - 130	4	20
Hexachlorobenzene	1.97	2.00		ug/L		101	70 - 130	2	20
Hexachlorocyclopentadiene	1.97	2.08		ug/L		106	70 - 130	1	20
Indeno[1,2,3-cd]pyrene	1.97	2.00		ug/L		102	70 - 130	1	20
Isophorone	1.97	2.13		ug/L		108	70 - 130	3	20
Lindane	1.97	2.20		ug/L		112	70 - 130	1	20
Malathion	1.97	2.10		ug/L		107	70 - 130	2	20
Methoxychlor	1.97	1.99		ug/L		101	70 - 130	0	20
Metolachlor	1.97	2.14		ug/L		108	70 - 130	0	20
Molinate	1.97	2.21		ug/L		112	70 - 130	0	20
Naphthalene	1.97	1.93		ug/L		98	70 - 130	0	20
Parathion	1.97	2.11		ug/L		107	70 - 130	1	20
Pendimethalin (Penoxaline)	1.97	2.05		ug/L		104	70 - 130	1	20
Phenanthrene	1.97	1.99		ug/L		101	70 - 130	2	20
Propachlor	1.97	2.32		ug/L		118	70 - 130	2	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 380-162709/24-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pyrene	1.97	2.24		ug/L		113	70 - 130	0	20
Simazine	1.97	2.14		ug/L		109	70 - 130	4	20
Terbacil	1.97	2.19		ug/L		111	70 - 130	2	20
Terbutylazine	1.97	2.13		ug/L		108	70 - 130	3	20
Thiobencarb	1.97	2.06		ug/L		105	70 - 130	1	20
trans-Nonachlor	1.97	1.90		ug/L		96	70 - 130	2	20
Trifluralin	1.97	1.85		ug/L		94	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: MRL 380-162709/22-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0981	0.111		ug/L		113	50 - 150
2,4'-DDD	0.0981	0.0855	J	ug/L		87	50 - 150
2,4'-DDE	0.0981	0.102		ug/L		104	50 - 150
2,4'-DDT	0.0981	0.105		ug/L		107	50 - 150
2,4-Dinitrotoluene	0.0981	0.0957	J	ug/L		97	50 - 150
2,6-Dinitrotoluene	0.0981	0.124		ug/L		127	50 - 150
2-Methylnaphthalene	0.0981	0.105		ug/L		107	50 - 150
4,4'-DDD	0.0981	0.107		ug/L		109	50 - 150
4,4'-DDE	0.0981	0.0927	J	ug/L		94	50 - 150
4,4'-DDT	0.0981	0.117		ug/L		119	50 - 150
Acenaphthene	0.0981	0.0940	J	ug/L		96	50 - 150
Acenaphthylene	0.0981	0.0804	J	ug/L		82	50 - 150
Acetochlor	0.0981	0.112		ug/L		114	50 - 150
Alachlor	0.0491	0.0543		ug/L		111	50 - 150
alpha-BHC	0.0981	0.103		ug/L		105	50 - 150
alpha-Chlordane	0.0245	0.0283	J	ug/L		115	50 - 150
Anthracene	0.0196	0.0225		ug/L		115	50 - 150
Atrazine	0.0491	0.0534		ug/L		109	50 - 150
Benz(a)anthracene	0.0491	0.0638		ug/L		130	50 - 150
Benzo[a]pyrene	0.0196	0.0203		ug/L		103	50 - 150
Benzo[b]fluoranthene	0.0196	0.0225		ug/L		115	50 - 150
Benzo[g,h,i]perylene	0.0491	0.0534		ug/L		109	50 - 150
Benzo[k]fluoranthene	0.0196	0.0217		ug/L		110	50 - 150
beta-BHC	0.0981	0.107		ug/L		109	50 - 150
Bis(2-ethylhexyl) phthalate	0.589	0.528	J	ug/L		90	50 - 150
Bromacil	0.0981	0.115		ug/L		118	50 - 150
Butachlor	0.0491	0.0623		ug/L		127	50 - 150
Butylbenzylphthalate	0.491	0.609		ug/L		124	50 - 150
Chlorobenzilate	0.0981	0.101		ug/L		103	50 - 150
Chloroneb	0.0981	0.103		ug/L		105	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-162709/22-A

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorothalonil (Draconil, Bravo)	0.0981	0.100		ug/L		102	50 - 150
Chlorpyrifos	0.0491	0.0494		ug/L		101	50 - 150
Chrysene	0.0196	0.0212		ug/L		108	50 - 150
delta-BHC	0.0981	0.0968	J	ug/L		99	50 - 150
Di(2-ethylhexyl)adipate	0.589	0.683		ug/L		116	50 - 150
Dibenz(a,h)anthracene	0.0491	0.0563		ug/L		115	50 - 150
Diclorvos (DDVP)	0.0491	0.0584		ug/L		119	50 - 150
Dieldrin	0.00981	0.0109		ug/L		111	50 - 150
Diethylphthalate	0.491	0.542		ug/L		110	50 - 150
Dimethylphthalate	0.491	0.543		ug/L		111	50 - 150
Di-n-butyl phthalate	0.491	0.594	J	ug/L		121	49 - 243
Di-n-octyl phthalate	0.0981	0.0883	J	ug/L		90	50 - 150
Endosulfan I (Alpha)	0.0981	0.103		ug/L		104	50 - 150
Endosulfan II (Beta)	0.0981	0.105		ug/L		107	50 - 150
Endosulfan sulfate	0.0981	0.114		ug/L		116	50 - 150
Endrin	0.00981	0.0122		ug/L		125	50 - 150
Endrin aldehyde	0.0981	0.109		ug/L		111	50 - 150
EPTC	0.0981	0.0966	J	ug/L		98	50 - 150
Fluoranthene	0.0981	0.0999		ug/L		102	50 - 150
Fluorene	0.0491	0.0522		ug/L		106	50 - 150
gamma-Chlordane	0.0245	0.0263	J	ug/L		107	50 - 150
Heptachlor	0.00981	0.0119		ug/L		121	50 - 150
Heptachlor epoxide (isomer B)	0.00981	0.00950	J	ug/L		97	50 - 150
Hexachlorobenzene	0.0491	0.0462	J	ug/L		94	50 - 150
Hexachlorocyclopentadiene	0.0491	0.0554		ug/L		113	50 - 150
Indeno[1,2,3-cd]pyrene	0.0491	0.0574		ug/L		117	50 - 150
Isophorone	0.0981	0.120		ug/L		123	50 - 150
Lindane	0.00981	0.0101		ug/L		103	50 - 150
Malathion	0.0981	0.0966	J	ug/L		98	50 - 150
Methoxychlor	0.0491	0.0683		ug/L		139	50 - 150
Metolachlor	0.0491	0.0634		ug/L		129	50 - 150
Molinate	0.0981	0.104		ug/L		106	50 - 150
Naphthalene	0.0981	0.100		ug/L		102	50 - 150
Parathion	0.0981	0.103		ug/L		105	50 - 150
Pendimethalin (Penoxaline)	0.0981	0.0962	J	ug/L		98	50 - 150
Phenanthrene	0.0393	0.0431		ug/L		110	50 - 150
Propachlor	0.0491	0.0535		ug/L		109	50 - 150
Pyrene	0.0491	0.0529		ug/L		108	50 - 150
Simazine	0.0491	0.0499		ug/L		102	50 - 150
Terbacil	0.0981	0.106		ug/L		108	50 - 150
Terbutylazine	0.0981	0.107		ug/L		109	50 - 150
Thiobencarb	0.0981	0.107		ug/L		109	50 - 150
trans-Nonachlor	0.0245	0.0276	J	ug/L		113	50 - 150
Trifluralin	0.0981	0.0996		ug/L		102	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	86		70 - 130

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QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-162709/22-A
Matrix: Water
Analysis Batch: 162935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 162709

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Triphenylphosphate	101		70 - 130

Lab Sample ID: 380-160125-AG-1-B MS
Matrix: Water
Analysis Batch: 162935

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 162709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.96	1.96		ug/L		100	70 - 130
2,4'-DDD	<0.098		1.96	2.10		ug/L		107	70 - 130
2,4'-DDE	<0.098		1.96	1.92		ug/L		98	70 - 130
2,4'-DDT	<0.098		1.96	1.98		ug/L		101	70 - 130
2,4-Dinitrotoluene	<0.098		1.96	2.12		ug/L		108	70 - 130
2,6-Dinitrotoluene	<0.098		1.96	2.04		ug/L		104	70 - 130
2-Methylnaphthalene	<0.098		1.96	1.99		ug/L		101	70 - 130
4,4'-DDD	<0.098		1.96	2.01		ug/L		103	70 - 130
4,4'-DDE	<0.098		1.96	2.08		ug/L		106	70 - 130
4,4'-DDT	<0.098		1.96	2.00		ug/L		102	70 - 130
Acenaphthene	<0.098		1.96	2.04		ug/L		104	70 - 130
Acenaphthylene	<0.098		1.96	2.02		ug/L		103	70 - 130
Acetochlor	<0.098		1.96	2.01		ug/L		102	70 - 130
Alachlor	<0.049		1.96	2.21		ug/L		113	70 - 130
alpha-BHC	<0.098		1.96	2.06		ug/L		105	70 - 130
alpha-Chlordane	<0.049		1.96	1.94		ug/L		99	70 - 130
Anthracene	<0.020	F1	1.96	1.35	F1	ug/L		69	70 - 130
Atrazine	<0.049		1.96	2.09		ug/L		106	70 - 130
Benz(a)anthracene	<0.049		1.96	1.97		ug/L		100	70 - 130
Benzo[a]pyrene	<0.020		1.96	1.95		ug/L		99	70 - 130
Benzo[b]fluoranthene	<0.020		1.96	2.13		ug/L		108	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	1.99		ug/L		101	70 - 130
Benzo[k]fluoranthene	<0.020		1.96	2.01		ug/L		102	70 - 130
beta-BHC	<0.098		1.96	2.11		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.96	2.07		ug/L		105	70 - 130
Bromacil	<0.098		1.96	2.17		ug/L		111	70 - 130
Butachlor	<0.049		1.96	2.08		ug/L		106	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.30		ug/L		117	70 - 130
Chlorobenzilate	<0.098		1.96	2.06		ug/L		105	70 - 130
Chloroneb	<0.098		1.96	2.06		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.96	1.94		ug/L		99	70 - 130
Chlorpyrifos	<0.049		1.96	2.17		ug/L		110	70 - 130
Chrysene	<0.020		1.96	2.00		ug/L		102	70 - 130
delta-BHC	<0.098		1.96	2.00		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.96	2.30		ug/L		117	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	1.97		ug/L		100	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.20		ug/L		112	70 - 130
Dieldrin	<0.0098		1.96	2.14		ug/L		109	70 - 130
Diethylphthalate	<0.49		1.96	2.16		ug/L		110	70 - 130
Dimethylphthalate	<0.49		1.96	2.18		ug/L		111	70 - 130
Di-n-butyl phthalate	<0.98		3.93	4.54		ug/L		110	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-160125-AG-1-B MS

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-octyl phthalate	<0.098		1.96	1.99		ug/L		101	70 - 130
Endosulfan I (Alpha)	<0.098		1.96	2.09		ug/L		106	70 - 130
Endosulfan II (Beta)	<0.098		1.96	2.04		ug/L		104	70 - 130
Endosulfan sulfate	<0.098		1.96	2.04		ug/L		104	70 - 130
Endrin	<0.0098		1.96	2.12		ug/L		108	70 - 130
Endrin aldehyde	<0.098		1.96	1.73		ug/L		88	60 - 130
EPTC	<0.098		1.96	2.12		ug/L		108	70 - 130
Fluoranthene	<0.098		1.96	2.08		ug/L		106	70 - 130
Fluorene	<0.049		1.96	2.16		ug/L		110	70 - 130
gamma-Chlordane	<0.049		1.96	1.96		ug/L		100	70 - 130
Heptachlor	<0.0098		1.96	2.06		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	<0.0098		1.96	2.04		ug/L		104	70 - 130
Hexachlorobenzene	<0.049		1.96	1.98		ug/L		101	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	2.11		ug/L		107	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.96	2.02		ug/L		103	70 - 130
Isophorone	<0.098		1.96	2.11		ug/L		107	70 - 130
Lindane	<0.0098		1.96	2.11		ug/L		107	70 - 130
Malathion	<0.098		1.96	2.05		ug/L		104	70 - 130
Methoxychlor	<0.049		1.96	2.03		ug/L		104	70 - 130
Metolachlor	<0.049		1.96	2.07		ug/L		105	70 - 130
Molinate	<0.098		1.96	2.20		ug/L		112	70 - 130
Naphthalene	<0.098		1.96	1.93		ug/L		98	70 - 130
Parathion	<0.098		1.96	2.11		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.96	2.08		ug/L		106	70 - 130
Phenanthrene	<0.039		1.96	1.97		ug/L		100	70 - 130
Propachlor	<0.049		1.96	2.26		ug/L		115	70 - 130
Pyrene	<0.049		1.96	2.21		ug/L		113	70 - 130
Simazine	<0.049		1.96	2.10		ug/L		107	70 - 130
Terbacil	<0.098		1.96	2.09		ug/L		106	70 - 130
Terbutylazine	<0.098		1.96	2.10		ug/L		107	70 - 130
Thiobencarb	<0.098		1.96	2.06		ug/L		105	70 - 130
trans-Nonachlor	<0.049		1.96	1.92		ug/L		98	70 - 130
Trifluralin	<0.098		1.96	1.92		ug/L		98	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: 380-159985-X-1-B DU

Matrix: Water

Analysis Batch: 162935

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 162709

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
2,4'-DDD	<0.098		<0.099		ug/L		NC	20
2,4'-DDE	<0.098		<0.099		ug/L		NC	20
2,4'-DDT	<0.098		<0.099		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-159985-X-1-B DU
Matrix: Water
Analysis Batch: 162935

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 162709

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
2,4-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
4,4'-DDD	<0.098		<0.099		ug/L		NC	20
4,4'-DDE	<0.098		<0.099		ug/L		NC	20
4,4'-DDT	<0.098		<0.099		ug/L		NC	20
Acenaphthene	<0.098		<0.099		ug/L		NC	20
Acenaphthylene	<0.098		<0.099		ug/L		NC	20
Acetochlor	<0.098		<0.099		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.099		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.099		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.099		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.099		ug/L		NC	20
Chloroneb	<0.098		<0.099		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.099		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.099		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0098		<0.0099		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.99		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.099		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.099		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.099		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.099		ug/L		NC	20
Endrin	<0.0098		<0.0099		ug/L		NC	20
Endrin aldehyde	<0.098		<0.099		ug/L		NC	20
EPTC	<0.098		<0.099		ug/L		NC	20
Fluoranthene	<0.098		<0.099		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0098		<0.0099		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0099		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-159985-X-1-B DU
Matrix: Water
Analysis Batch: 162935

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 162709

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.098		<0.099		ug/L		NC	20
Lindane	<0.0098		<0.0099		ug/L		NC	20
Malathion	<0.098		<0.099		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.099		ug/L		NC	20
Naphthalene	<0.098		<0.099		ug/L		NC	20
Parathion	<0.098		<0.099		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.099		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.098		<0.099		ug/L		NC	20
Terbutylazine	<0.098		<0.099		ug/L		NC	20
Thiobencarb	<0.098		<0.099		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.099		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	85		70 - 130
Triphenylphosphate	100		70 - 130

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-597175/1-A
Matrix: Water
Analysis Batch: 601736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597175

Tentatively Identified Compound	Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/15/25 05:22	07/24/25 15:02	1

Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	68		33 - 139	07/15/25 05:22	07/24/25 15:02	1
2-Fluorobiphenyl (Surr)	73		33 - 126	07/15/25 05:22	07/24/25 15:02	1
2-Fluorophenol (Surr)	42		12 - 120	07/15/25 05:22	07/24/25 15:02	1
Nitrobenzene-d5 (Surr)	80		36 - 120	07/15/25 05:22	07/24/25 15:02	1
Phenol-d6 (Surr)	23		10 - 120	07/15/25 05:22	07/24/25 15:02	1
p-Terphenyl-d14 (Surr)	69		47 - 131	07/15/25 05:22	07/24/25 15:02	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-597175/1-A

Matrix: Water

Analysis Batch: 600411

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 597175

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
2-Methylnaphthalene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Acenaphthene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Acenaphthylene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Anthracene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Benzo[a]anthracene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Benzo[a]pyrene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Chrysene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Fluoranthene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Fluorene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Naphthalene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Phenanthrene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1
Pyrene	<0.20		0.20	ug/L		07/15/25 05:22	07/22/25 12:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		28 - 127	07/15/25 05:22	07/22/25 12:00	1
2-Fluorobiphenyl (Surr)	76		31 - 120	07/15/25 05:22	07/22/25 12:00	1
2-Fluorophenol (Surr)	45		17 - 120	07/15/25 05:22	07/22/25 12:00	1
Nitrobenzene-d5 (Surr)	76		27 - 120	07/15/25 05:22	07/22/25 12:00	1
Phenol-d6 (Surr)	27		10 - 120	07/15/25 05:22	07/22/25 12:00	1
p-Terphenyl-d14 (Surr)	81		45 - 120	07/15/25 05:22	07/22/25 12:00	1

Lab Sample ID: LCS 570-597175/2-A

Matrix: Water

Analysis Batch: 600411

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 597175

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	15.8		ug/L		79	47 - 120
2-Methylnaphthalene	20.0	15.2		ug/L		76	43 - 120
Acenaphthene	20.0	18.3		ug/L		91	60 - 132
Acenaphthylene	20.0	18.5		ug/L		93	54 - 126
Anthracene	20.0	18.1		ug/L		90	43 - 120
Benzo[a]anthracene	20.0	18.5		ug/L		93	42 - 133
Benzo[a]pyrene	20.0	17.8		ug/L		89	32 - 148
Benzo[b]fluoranthene	20.0	18.1		ug/L		90	42 - 140
Benzo[g,h,i]perylene	20.0	19.2		ug/L		96	1 - 195
Benzo[k]fluoranthene	20.0	18.1		ug/L		91	25 - 146
Chrysene	20.0	18.8		ug/L		94	44 - 140
Dibenz(a,h)anthracene	20.0	18.8		ug/L		94	1 - 200
Fluoranthene	20.0	18.7		ug/L		94	43 - 121
Fluorene	20.0	18.9		ug/L		94	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.8		ug/L		89	1 - 151
Naphthalene	20.0	15.3		ug/L		77	36 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 570-597175/2-A

Matrix: Water

Analysis Batch: 600411

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 597175

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	20.0	18.6		ug/L		93	65 - 120
Pyrene	20.0	19.4		ug/L		97	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		28 - 127
2-Fluorobiphenyl (Surr)	84		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	87		45 - 120

Lab Sample ID: LCSD 570-597175/3-A

Matrix: Water

Analysis Batch: 600411

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 597175

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	16.4		ug/L		82	47 - 120	3	20
2-Methylnaphthalene	20.0	15.9		ug/L		80	43 - 120	5	20
Acenaphthene	20.0	19.0		ug/L		95	60 - 132	4	29
Acenaphthylene	20.0	19.2		ug/L		96	54 - 126	4	45
Anthracene	20.0	18.8		ug/L		94	43 - 120	4	40
Benzo[a]anthracene	20.0	18.5		ug/L		93	42 - 133	0	32
Benzo[a]pyrene	20.0	18.2		ug/L		91	32 - 148	2	43
Benzo[b]fluoranthene	20.0	19.0		ug/L		95	42 - 140	5	43
Benzo[g,h,i]perylene	20.0	19.5		ug/L		98	1 - 195	1	61
Benzo[k]fluoranthene	20.0	18.8		ug/L		94	25 - 146	3	38
Chrysene	20.0	18.8		ug/L		94	44 - 140	0	53
Dibenz(a,h)anthracene	20.0	19.3		ug/L		96	1 - 200	3	75
Fluoranthene	20.0	19.5		ug/L		98	43 - 121	4	40
Fluorene	20.0	19.5		ug/L		97	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	20.0	18.0		ug/L		90	1 - 151	1	60
Naphthalene	20.0	15.8		ug/L		79	36 - 120	3	39
Phenanthrene	20.0	19.4		ug/L		97	65 - 120	4	24
Pyrene	20.0	19.8		ug/L		99	70 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	86		28 - 127
2-Fluorobiphenyl (Surr)	86		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	87		45 - 120

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 570-596498/6

Matrix: Water

Analysis Batch: 596498

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			07/13/25 13:29	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66		38 - 134				07/13/25 13:29	1

Lab Sample ID: LCS 570-596498/4

Matrix: Water

Analysis Batch: 596498

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	420		ug/L		105	78 - 120
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	78		38 - 134				

Lab Sample ID: LCSD 570-596498/5

Matrix: Water

Analysis Batch: 596498

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	417		ug/L		104	78 - 120	1	10
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	83		38 - 134						

Lab Sample ID: MRL 570-596498/3

Matrix: Water

Analysis Batch: 596498

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	14.4		ug/L		144	50 - 150
Surrogate	%Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	66		38 - 134				

Lab Sample ID: 380-158440-C-1 MS

Matrix: Water

Analysis Batch: 596498

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	413		ug/L		103	68 - 122
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	86		38 - 134						

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-158440-C-1 MSD

Matrix: Water

Analysis Batch: 596498

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	402		ug/L		101	68 - 122	3	18
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	85		38 - 134								

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Lab Sample ID: MB 570-596824/1-A

Matrix: Water

Analysis Batch: 599363

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 596824

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		07/14/25 10:40	07/19/25 01:21	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		07/14/25 10:40	07/19/25 01:21	1
C8-C18	<25		25	ug/L		07/14/25 10:40	07/19/25 01:21	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
n-Octacosane (Surr)	92		60 - 130			07/14/25 10:40	07/19/25 01:21	1

Lab Sample ID: LCS 570-596824/2-A

Matrix: Water

Analysis Batch: 599363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD
C10-C28	1600	1520		ug/L		95	56 - 127	
Surrogate	%Recovery	LCS Qualifier	LCS Limits					
n-Octacosane (Surr)	105		60 - 130					

Lab Sample ID: LCSD 570-596824/3-A

Matrix: Water

Analysis Batch: 599363

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 596824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28			1600	1470		ug/L		92	56 - 127	4	23
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
n-Octacosane (Surr)	101		60 - 130								

Lab Sample ID: MRL 570-596824/4-A

Matrix: Water

Analysis Batch: 599363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 596824

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD
C10-C28	0.0200	0.0225	J	mg/L		113	50 - 150	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)

Lab Sample ID: MRL 570-596824/4-A
Matrix: Water
Analysis Batch: 599363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 596824

Surrogate	MRL %Recovery	MRL Qualifier	Limits
n-Octacosane (Surr)	94		60 - 130

Lab Sample ID: 380-159486-B-1-B MS
Matrix: Water
Analysis Batch: 599363

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 596824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	48		1660	1740		ug/L		102	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
n-Octacosane (Surr)	111		60 - 130								

Lab Sample ID: 380-159486-B-1-C MSD
Matrix: Water
Analysis Batch: 599363

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 596824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	48		1670	1700		ug/L		99	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	109		60 - 130								

QC Association Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

GC/MS Semi VOA

Prep Batch: 162709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-162709/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-162709/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-162709/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-162709/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-160125-AG-1-B MS	Matrix Spike	Total/NA	Water	525.2	
380-159985-X-1-B DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 162935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	162709
MB 380-162709/21-A	Method Blank	Total/NA	Water	525.2	162709
LCS 380-162709/23-A	Lab Control Sample	Total/NA	Water	525.2	162709
LCSD 380-162709/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	162709
MRL 380-162709/22-A	Lab Control Sample	Total/NA	Water	525.2	162709
380-160125-AG-1-B MS	Matrix Spike	Total/NA	Water	525.2	162709
380-159985-X-1-B DU	Duplicate	Total/NA	Water	525.2	162709

Prep Batch: 597175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-597175/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-597175/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-597175/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 600411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-597175/1-A	Method Blank	Total/NA	Water	625.1 SIM	597175
LCS 570-597175/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	597175
LCSD 570-597175/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	597175

Analysis Batch: 601009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	597175

Analysis Batch: 601736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	597175
MB 570-597175/1-A	Method Blank	Total/NA	Water	625.1	597175

GC VOA

Analysis Batch: 596498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-160178-2	TB: HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
MB 570-596498/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-596498/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-596498/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-596498/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-158440-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	

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QC Association Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

GC VOA (Continued)

Analysis Batch: 596498 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-158440-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 596824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-596824/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-596824/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-596824/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-596824/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-159486-B-1-B MS	Matrix Spike	Total/NA	Water	3510C	
380-159486-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 599363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-160178-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	596824
MB 570-596824/1-A	Method Blank	Total/NA	Water	8015B	596824
LCS 570-596824/2-A	Lab Control Sample	Total/NA	Water	8015B	596824
LCSD 570-596824/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	596824
MRL 570-596824/4-A	Lab Control Sample	Total/NA	Water	8015B	596824
380-159486-B-1-B MS	Matrix Spike	Total/NA	Water	8015B	596824
380-159486-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	596824

Lab Chronicle

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-1

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			162709	IQ42	EA POM	07/14/25 14:35
Total/NA	Analysis	525.2		1	162935	UPAC	EA POM	07/15/25 23:21
Total/NA	Prep	625.1			597175	H1SH	EET CAL 4	07/15/25 05:23
Total/NA	Analysis	625.1		1	601736	CG	EET CAL 4	07/24/25 15:26
Total/NA	Prep	625.1			597175	H1SH	EET CAL 4	07/15/25 05:23
Total/NA	Analysis	625.1 SIM		1	601009	PQS1	EET CAL 4	07/23/25 10:10
Total/NA	Analysis	8015B GRO LL		1	596498	W4LC	EET CAL 4	07/13/25 19:25
Total/NA	Prep	3510C			596824	TVD6	EET CAL 4	07/14/25 10:41
Total/NA	Analysis	8015B		1	599363	NR	EET CAL 4	07/19/25 05:42

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-160178-2

Date Collected: 07/08/25 09:25

Matrix: Water

Date Received: 07/11/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	596498	W4LC	EET CAL 4	07/13/25 20:42

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: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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	01-31-26

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

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Water	1-Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4'-DDT
525.2	525.2	Water	Acetochlor
525.2	525.2	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	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
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

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
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Method Summary

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

Job ID: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

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: 380-160178-1
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-160178-1	HALAWA SHAFT VIEWING POOL	Water	07/08/25 09:25	07/11/25 09:34
380-160178-2	TB: HALAWA SHAFT VIEWING POOL	Water	07/08/25 09:25	07/11/25 09:34

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

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380-160178 COC

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-160178-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 160178

List Number: 1

Creator: Ngo, Theodore

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).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-160178-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 160178

List Number: 2

Creator: Ablian, Samantha

List Source: Eurofins Calscience

List Creation: 07/12/25 11:14 AM

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.	True	
Sample custody seals, if present, are intact.	True	
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	4.1/4.4
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	