

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Weekly: Halawa Shaft Viewing Pool

JOB NUMBER

380-168529-1

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	11
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	31
Lab Chronicle	33
Certification Summary	34
Method Summary	36
Sample Summary	37
Chain of Custody	38
Receipt Checklists	40



Definitions/Glossary

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Qualifiers

GC/MS 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.

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: 380-168529-1

Job ID: 380-168529-1

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Job Narrative 380-168529-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 8/28/2025 9:38 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 1.2°C.

GC/MS Semi VOA

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.

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Detection Summary

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

☐ No Detections.

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-2

☐ 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: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2,4'-DDD	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2,4'-DDE	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2,4'-DDT	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
2-Methylnaphthalene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
4,4'-DDD	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
4,4'-DDE	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
4,4'-DDT	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Acenaphthene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Acenaphthylene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Acetochlor	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Alachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
alpha-BHC	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
alpha-Chlordane	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Anthracene	<0.019		0.019	ug/L		08/28/25 15:13	08/31/25 10:24	1
Atrazine	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Benz(a)anthracene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/28/25 15:13	08/31/25 10:24	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/28/25 15:13	08/31/25 10:24	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/28/25 15:13	08/31/25 10:24	1
beta-BHC	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/28/25 15:13	08/31/25 10:24	1
Bromacil	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Butachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Butylbenzylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:24	1
Chlorobenzilate	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Chloroneb	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Chlorpyrifos	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Chrysene	<0.019		0.019	ug/L		08/28/25 15:13	08/31/25 10:24	1
delta-BHC	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/28/25 15:13	08/31/25 10:24	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Dieldrin	<0.0097		0.0097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Diethylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:24	1
Dimethylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:24	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		08/28/25 15:13	08/31/25 10:24	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Endosulfan sulfate	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Endrin	<0.0097		0.0097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Endrin aldehyde	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
EPTC	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Fluoranthene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1

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Client Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

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		08/28/25 15:13	08/31/25 10:24	1
gamma-Chlordane	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Heptachlor	<0.0097		0.0097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Hexachlorobenzene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Isophorone	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Lindane	<0.0097		0.0097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Malathion	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Methoxychlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Metolachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Molinate	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Naphthalene	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Parathion	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Phenanthrene	<0.039		0.039	ug/L		08/28/25 15:13	08/31/25 10:24	1
Propachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Pyrene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Simazine	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Terbacil	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Terbutylazine	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Thiobencarb	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/28/25 15:13	08/31/25 10:24	1
trans-Nonachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:24	1
Trifluralin	<0.097		0.097	ug/L		08/28/25 15:13	08/31/25 10:24	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/28/25 15:13	08/31/25 10:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	08/28/25 15:13	08/31/25 10:24	1
Perylene-d12	88		70 - 130	08/28/25 15:13	08/31/25 10:24	1
Triphenylphosphate	98		70 - 130	08/28/25 15:13	08/31/25 10:24	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		08/29/25 04:42	08/31/25 01:41	1
2-Methylnaphthalene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Acenaphthene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Acenaphthylene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Anthracene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Benzo[a]anthracene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Benzo[a]pyrene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Chrysene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Fluoranthene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

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		08/29/25 04:42	08/31/25 01:41	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Naphthalene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Phenanthrene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1
Pyrene	<0.19		0.19	ug/L		08/29/25 04:42	08/31/25 01:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		28 - 127	08/29/25 04:42	08/31/25 01:41	1
2-Fluorobiphenyl (Surr)	73		31 - 120	08/29/25 04:42	08/31/25 01:41	1
2-Fluorophenol (Surr)	48		17 - 120	08/29/25 04:42	08/31/25 01:41	1
Nitrobenzene-d5 (Surr)	73		27 - 120	08/29/25 04:42	08/31/25 01:41	1
Phenol-d6 (Surr)	33		10 - 120	08/29/25 04:42	08/31/25 01:41	1
p-Terphenyl-d14 (Surr)	74		45 - 120	08/29/25 04:42	08/31/25 01:41	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
Cyclic octaatomic sulfur	15	T J N	ug/L		9.78	10544-50-0	08/29/25 04:42	09/10/25 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		33 - 139	08/29/25 04:42	09/10/25 15:13	1
2-Fluorobiphenyl (Surr)	84		33 - 126	08/29/25 04:42	09/10/25 15:13	1
2-Fluorophenol (Surr)	54		12 - 120	08/29/25 04:42	09/10/25 15:13	1
Nitrobenzene-d5 (Surr)	91		36 - 120	08/29/25 04:42	09/10/25 15:13	1
Phenol-d6 (Surr)	36		10 - 120	08/29/25 04:42	09/10/25 15:13	1
p-Terphenyl-d14 (Surr)	88		47 - 131	08/29/25 04:42	09/10/25 15:13	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			09/07/25 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63		38 - 134		09/07/25 13:00	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		08/29/25 09:41	09/07/25 09:26	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/29/25 09:41	09/07/25 09:26	1
C8-C18	<25		25	ug/L		08/29/25 09:41	09/07/25 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 130	08/29/25 09:41	09/07/25 09:26	1

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-2

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

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			09/07/25 18:21	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: TB: Halawa Shaft Viewing Pool Lab Sample ID: 380-168529-2
Date Collected: 08/26/25 09:25 Matrix: Water
Date Received: 08/28/25 09:38

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		38 - 134		09/07/25 18:21	1

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- 6
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- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Action Limit Summary

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

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	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		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	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	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	<0.0097		ug/L	0.2	0.0097	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
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: 380-168529-1
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)
380-168449-D-1-A DU	Duplicate	98	84	104
380-168529-1	Halawa Shaft Viewing Pool	97	88	98
380-168529-1 MS	Halawa Shaft Viewing Pool	92	94	105
LCS 380-171223/21-A	Lab Control Sample	94	99	103
LCSD 380-171223/22-A	Lab Control Sample Dup	93	94	102
MB 380-171223/19-A	Method Blank	93	86	103
MRL 380-171223/20-A	Lab Control Sample	96	85	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)
380-168529-1	Halawa Shaft Viewing Pool	74	84	54	91	36	88
MB 570-617934/1-A	Method Blank	78	79	52	87	31	79

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)
380-168000-A-1-A MS	Matrix Spike	88	75	51	64	32	72
380-168000-A-1-B MSD	Matrix Spike Duplicate	93	79	56	68	35	76
380-168529-1	Halawa Shaft Viewing Pool	83	73	48	73	33	74
LCS 570-617934/2-A	Lab Control Sample	88	75	53	63	34	72
LCSD 570-617934/3-A	Lab Control Sample Dup	92	78	53	66	34	77
MB 570-617934/1-A	Method Blank	95	78	53	81	32	76

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: 380-168529-1
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)
380-168529-1	Halawa Shaft Viewing Pool	63
380-168529-2	TB: Halawa Shaft Viewing Pool	76
380-169530-C-1 MS	Matrix Spike	87
380-169530-C-1 MSD	Matrix Spike Duplicate	86
LCS 570-622036/4	Lab Control Sample	82
LCSD 570-622036/5	Lab Control Sample Dup	90
MB 570-622036/6	Method Blank	67
MRL 570-622036/3	Lab Control Sample	72

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)
380-168000-C-1-A MS	Matrix Spike	99
380-168000-C-1-B MSD	Matrix Spike Duplicate	111
380-168529-1	Halawa Shaft Viewing Pool	109
LCS 570-618766/2-A	Lab Control Sample	101
LCSD 570-618766/3-A	Lab Control Sample Dup	103
MB 570-618766/1-A	Method Blank	112
MRL 570-618766/4-A	Lab Control Sample	87

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-171223/19-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 171223

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2,4'-DDD	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2,4'-DDE	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2,4'-DDT	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
2-Methylnaphthalene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
4,4'-DDD	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
4,4'-DDE	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
4,4'-DDT	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Acenaphthene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Acenaphthylene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Acetochlor	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Alachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
alpha-BHC	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
alpha-Chlordane	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Anthracene	<0.020		0.020	ug/L		08/28/25 15:13	08/31/25 10:04	1
Atrazine	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Benz(a)anthracene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Benzo[a]pyrene	<0.020		0.020	ug/L		08/28/25 15:13	08/31/25 10:04	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		08/28/25 15:13	08/31/25 10:04	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		08/28/25 15:13	08/31/25 10:04	1
beta-BHC	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		08/28/25 15:13	08/31/25 10:04	1
Bromacil	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Butachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Butylbenzylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:04	1
Chlorobenzilate	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Chloroneb	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Chlorpyrifos	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Chrysene	<0.020		0.020	ug/L		08/28/25 15:13	08/31/25 10:04	1
delta-BHC	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		08/28/25 15:13	08/31/25 10:04	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Dieldrin	<0.0099		0.0099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Diethylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:04	1
Dimethylphthalate	<0.49		0.49	ug/L		08/28/25 15:13	08/31/25 10:04	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		08/28/25 15:13	08/31/25 10:04	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Endosulfan sulfate	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Endrin	<0.0099		0.0099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Endrin aldehyde	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
EPTC	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1

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QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-171223/19-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 171223

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Fluorene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
gamma-Chlordane	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Heptachlor	<0.0099		0.0099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Hexachlorobenzene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Isophorone	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Lindane	<0.0099		0.0099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Malathion	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Methoxychlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Metolachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Molinate	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Naphthalene	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Parathion	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Phenanthrene	<0.039		0.039	ug/L		08/28/25 15:13	08/31/25 10:04	1
Propachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Pyrene	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Simazine	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Terbacil	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Terbutylazine	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Thiobencarb	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		08/28/25 15:13	08/31/25 10:04	1
trans-Nonachlor	<0.049		0.049	ug/L		08/28/25 15:13	08/31/25 10:04	1
Trifluralin	<0.099		0.099	ug/L		08/28/25 15:13	08/31/25 10:04	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Cyclohexasiloxane, dodecamethyl-	0.688	T J N	ug/L		3.85	540-97-6	08/28/25 15:13	08/31/25 10:04	1
Phenol, 4-(1,1-dimethylpropyl)-	0.690	T J N	ug/L		4.22	80-46-6	08/28/25 15:13	08/31/25 10:04	1
9-Octadecenamide, (Z)-	3.06	T J N	ug/L		7.82	301-02-0	08/28/25 15:13	08/31/25 10:04	1
13-Docosenamide, (Z)-	1.55	T J N	ug/L		10.32	112-84-5	08/28/25 15:13	08/31/25 10:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	08/28/25 15:13	08/31/25 10:04	1
Perylene-d12	86		70 - 130	08/28/25 15:13	08/31/25 10:04	1
Triphenylphosphate	103		70 - 130	08/28/25 15:13	08/31/25 10:04	1

Lab Sample ID: LCS 380-171223/21-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	1.98		ug/L		101	70 - 130
2,4'-DDD	1.97	2.04		ug/L		103	70 - 130
2,4'-DDE	1.97	1.99		ug/L		101	70 - 130
2,4'-DDT	1.97	2.00		ug/L		102	70 - 130

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QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-171223/21-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.97	1.84		ug/L		93	70 - 130
2,6-Dinitrotoluene	1.97	1.78		ug/L		91	70 - 130
2-Methylnaphthalene	1.97	1.83		ug/L		93	70 - 130
4,4'-DDD	1.97	2.10		ug/L		107	70 - 130
4,4'-DDE	1.97	1.98		ug/L		101	70 - 130
4,4'-DDT	1.97	2.07		ug/L		105	70 - 130
Acenaphthene	1.97	1.88		ug/L		95	70 - 130
Acenaphthylene	1.97	1.84		ug/L		93	70 - 130
Acetochlor	1.97	2.06		ug/L		104	70 - 130
Alachlor	1.97	2.06		ug/L		105	70 - 130
alpha-BHC	1.97	1.86		ug/L		94	70 - 130
alpha-Chlordane	1.97	2.05		ug/L		104	70 - 130
Anthracene	1.97	1.82		ug/L		92	70 - 130
Atrazine	1.97	1.96		ug/L		100	70 - 130
Benz(a)anthracene	1.97	1.89		ug/L		96	70 - 130
Benzo[a]pyrene	1.97	1.95		ug/L		99	70 - 130
Benzo[b]fluoranthene	1.97	1.98		ug/L		101	70 - 130
Benzo[g,h,i]perylene	1.97	2.00		ug/L		102	70 - 130
Benzo[k]fluoranthene	1.97	1.96		ug/L		100	70 - 130
beta-BHC	1.97	1.95		ug/L		99	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	1.94		ug/L		99	70 - 130
Bromacil	1.97	1.84		ug/L		94	70 - 130
Butachlor	1.97	2.20		ug/L		112	70 - 130
Butylbenzylphthalate	1.97	2.10		ug/L		107	70 - 130
Chlorobenzilate	1.97	2.13		ug/L		108	70 - 130
Chloroneb	1.97	1.97		ug/L		100	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	1.97		ug/L		100	70 - 130
Chlorpyrifos	1.97	2.08		ug/L		106	70 - 130
Chrysene	1.97	2.01		ug/L		102	70 - 130
delta-BHC	1.97	1.90		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.03		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.97	1.90		ug/L		97	70 - 130
Diclorvos (DDVP)	1.97	1.89		ug/L		96	70 - 130
Dieldrin	1.97	1.96		ug/L		100	70 - 130
Diethylphthalate	1.97	2.08		ug/L		106	70 - 130
Dimethylphthalate	1.97	1.99		ug/L		101	70 - 130
Di-n-butyl phthalate	3.94	4.29		ug/L		109	70 - 130
Di-n-octyl phthalate	1.97	2.04		ug/L		104	70 - 130
Endosulfan I (Alpha)	1.97	1.83		ug/L		93	70 - 130
Endosulfan II (Beta)	1.97	2.02		ug/L		103	70 - 130
Endosulfan sulfate	1.97	2.05		ug/L		104	70 - 130
Endrin	1.97	2.15		ug/L		109	70 - 130
Endrin aldehyde	1.97	1.83		ug/L		93	60 - 130
EPTC	1.97	2.04		ug/L		104	70 - 130
Fluoranthene	1.97	2.01		ug/L		102	70 - 130
Fluorene	1.97	1.96		ug/L		100	70 - 130
gamma-Chlordane	1.97	2.05		ug/L		104	70 - 130
Heptachlor	1.97	2.13		ug/L		108	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.11		ug/L		107	70 - 130

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QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-171223/21-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.97	1.84		ug/L		94	70 - 130
Hexachlorocyclopentadiene	1.97	1.81		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	1.95		ug/L		99	70 - 130
Isophorone	1.97	1.92		ug/L		98	70 - 130
Lindane	1.97	2.07		ug/L		105	70 - 130
Malathion	1.97	2.03		ug/L		103	70 - 130
Methoxychlor	1.97	2.17		ug/L		110	70 - 130
Metolachlor	1.97	2.16		ug/L		110	70 - 130
Molinate	1.97	2.08		ug/L		106	70 - 130
Naphthalene	1.97	1.77		ug/L		90	70 - 130
Parathion	1.97	2.06		ug/L		105	70 - 130
Pendimethalin (Penoxaline)	1.97	1.90		ug/L		97	70 - 130
Phenanthrene	1.97	1.83		ug/L		93	70 - 130
Propachlor	1.97	2.10		ug/L		107	70 - 130
Pyrene	1.97	2.08		ug/L		105	70 - 130
Simazine	1.97	2.02		ug/L		102	70 - 130
Terbacil	1.97	2.02		ug/L		103	70 - 130
Terbutylazine	1.97	2.08		ug/L		106	70 - 130
Thiobencarb	1.97	2.12		ug/L		108	70 - 130
trans-Nonachlor	1.97	2.05		ug/L		104	70 - 130
Trifluralin	1.97	1.97		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	94		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: LCSD 380-171223/22-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.98	1.95		ug/L		98	70 - 130	2	20
2,4'-DDD	1.98	2.09		ug/L		106	70 - 130	3	20
2,4'-DDE	1.98	2.05		ug/L		103	70 - 130	3	20
2,4'-DDT	1.98	2.02		ug/L		102	70 - 130	1	20
2,4-Dinitrotoluene	1.98	1.98		ug/L		100	70 - 130	8	20
2,6-Dinitrotoluene	1.98	1.93		ug/L		98	70 - 130	8	20
2-Methylnaphthalene	1.98	1.79		ug/L		90	70 - 130	3	20
4,4'-DDD	1.98	2.13		ug/L		108	70 - 130	2	20
4,4'-DDE	1.98	2.03		ug/L		102	70 - 130	2	20
4,4'-DDT	1.98	2.15		ug/L		109	70 - 130	4	20
Acenaphthene	1.98	1.92		ug/L		97	70 - 130	2	20
Acenaphthylene	1.98	1.93		ug/L		98	70 - 130	5	20
Acetochlor	1.98	2.10		ug/L		106	70 - 130	2	20
Alachlor	1.98	2.08		ug/L		105	70 - 130	1	20
alpha-BHC	1.98	1.99		ug/L		101	70 - 130	7	20
alpha-Chlordane	1.98	2.05		ug/L		104	70 - 130	0	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 380-171223/22-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	1.98	1.86		ug/L		94	70 - 130	2	20
Atrazine	1.98	2.05		ug/L		104	70 - 130	4	20
Benz(a)anthracene	1.98	1.95		ug/L		99	70 - 130	4	20
Benzo[a]pyrene	1.98	1.88		ug/L		95	70 - 130	4	20
Benzo[b]fluoranthene	1.98	2.03		ug/L		103	70 - 130	2	20
Benzo[g,h,i]perylene	1.98	1.94		ug/L		98	70 - 130	3	20
Benzo[k]fluoranthene	1.98	1.90		ug/L		96	70 - 130	3	20
beta-BHC	1.98	2.06		ug/L		104	70 - 130	5	20
Bis(2-ethylhexyl) phthalate	1.98	1.98		ug/L		100	70 - 130	2	20
Bromacil	1.98	2.00		ug/L		101	70 - 130	8	20
Butachlor	1.98	2.25		ug/L		114	70 - 130	2	20
Butylbenzylphthalate	1.98	2.06		ug/L		104	70 - 130	2	20
Chlorobenzilate	1.98	2.08		ug/L		105	70 - 130	2	20
Chloroneb	1.98	1.97		ug/L		100	70 - 130	0	20
Chlorothalonil (Draconil, Bravo)	1.98	2.02		ug/L		102	70 - 130	3	20
Chlorpyrifos	1.98	2.11		ug/L		107	70 - 130	2	20
Chrysene	1.98	2.00		ug/L		101	70 - 130	0	20
delta-BHC	1.98	1.95		ug/L		98	70 - 130	2	20
Di(2-ethylhexyl)adipate	1.98	2.08		ug/L		105	70 - 130	3	20
Dibenz(a,h)anthracene	1.98	1.85		ug/L		93	70 - 130	3	20
Diclorvos (DDVP)	1.98	1.98		ug/L		100	70 - 130	5	20
Dieldrin	1.98	1.96		ug/L		99	70 - 130	0	20
Diethylphthalate	1.98	2.11		ug/L		106	70 - 130	1	20
Dimethylphthalate	1.98	2.04		ug/L		103	70 - 130	2	20
Di-n-butyl phthalate	3.95	4.60		ug/L		116	70 - 130	7	20
Di-n-octyl phthalate	1.98	1.96		ug/L		99	70 - 130	4	20
Endosulfan I (Alpha)	1.98	1.84		ug/L		93	70 - 130	1	20
Endosulfan II (Beta)	1.98	2.00		ug/L		101	70 - 130	1	20
Endosulfan sulfate	1.98	2.08		ug/L		105	70 - 130	1	20
Endrin	1.98	2.09		ug/L		106	70 - 130	3	20
Endrin aldehyde	1.98	1.76		ug/L		89	60 - 130	4	20
EPTC	1.98	2.03		ug/L		103	70 - 130	1	20
Fluoranthene	1.98	2.05		ug/L		104	70 - 130	2	20
Fluorene	1.98	1.99		ug/L		101	70 - 130	2	20
gamma-Chlordane	1.98	2.06		ug/L		104	70 - 130	1	20
Heptachlor	1.98	2.13		ug/L		108	70 - 130	0	20
Heptachlor epoxide (isomer B)	1.98	2.09		ug/L		106	70 - 130	1	20
Hexachlorobenzene	1.98	1.93		ug/L		98	70 - 130	5	20
Hexachlorocyclopentadiene	1.98	1.92		ug/L		97	70 - 130	6	20
Indeno[1,2,3-cd]pyrene	1.98	1.87		ug/L		95	70 - 130	4	20
Isophorone	1.98	1.92		ug/L		97	70 - 130	0	20
Lindane	1.98	2.07		ug/L		105	70 - 130	0	20
Malathion	1.98	2.08		ug/L		105	70 - 130	3	20
Methoxychlor	1.98	2.16		ug/L		109	70 - 130	0	20
Metolachlor	1.98	2.16		ug/L		109	70 - 130	0	20
Molinate	1.98	2.09		ug/L		106	70 - 130	0	20
Naphthalene	1.98	1.77		ug/L		90	70 - 130	0	20
Parathion	1.98	2.07		ug/L		105	70 - 130	1	20
Pendimethalin (Penoxaline)	1.98	1.99		ug/L		101	70 - 130	5	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 380-171223/22-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	1.98	1.83		ug/L		93	70 - 130	0	20
Propachlor	1.98	2.15		ug/L		109	70 - 130	3	20
Pyrene	1.98	2.11		ug/L		107	70 - 130	2	20
Simazine	1.98	2.18		ug/L		110	70 - 130	8	20
Terbacil	1.98	2.14		ug/L		108	70 - 130	5	20
Terbutylazine	1.98	2.20		ug/L		111	70 - 130	6	20
Thiobencarb	1.98	2.16		ug/L		109	70 - 130	2	20
trans-Nonachlor	1.98	2.05		ug/L		104	70 - 130	0	20
Trifluralin	1.98	2.05		ug/L		103	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: MRL 380-171223/20-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0984	0.0954	J	ug/L		97	50 - 150
2,4'-DDD	0.0984	0.0799	J	ug/L		81	50 - 150
2,4'-DDE	0.0984	0.0932	J	ug/L		95	50 - 150
2,4'-DDT	0.0984	0.116		ug/L		118	50 - 150
2,4-Dinitrotoluene	0.0984	0.0892	J	ug/L		91	50 - 150
2,6-Dinitrotoluene	0.0984	0.0980		ug/L		100	50 - 150
2-Methylnaphthalene	0.0984	0.0958	J	ug/L		97	50 - 150
4,4'-DDD	0.0984	0.0951	J	ug/L		97	50 - 150
4,4'-DDE	0.0984	0.0888	J	ug/L		90	50 - 150
4,4'-DDT	0.0984	0.121		ug/L		123	50 - 150
Acenaphthene	0.0984	0.0903	J	ug/L		92	50 - 150
Acenaphthylene	0.0984	0.0899	J	ug/L		91	50 - 150
Acetochlor	0.0984	0.108		ug/L		110	50 - 150
Alachlor	0.0492	0.0469	J	ug/L		95	50 - 150
alpha-BHC	0.0984	0.0958	J	ug/L		97	50 - 150
alpha-Chlordane	0.0246	<0.029		ug/L		105	50 - 150
Anthracene	0.0197	0.0202		ug/L		103	50 - 150
Atrazine	0.0492	0.0511		ug/L		104	50 - 150
Benz(a)anthracene	0.0492	0.0503		ug/L		102	50 - 150
Benzo[a]pyrene	0.0197	0.0209		ug/L		106	50 - 150
Benzo[b]fluoranthene	0.0197	0.0237		ug/L		120	50 - 150
Benzo[g,h,i]perylene	0.0492	0.0338	J	ug/L		69	50 - 150
Benzo[k]fluoranthene	0.0197	0.0229		ug/L		116	50 - 150
beta-BHC	0.0984	0.102		ug/L		103	50 - 150
Bis(2-ethylhexyl) phthalate	0.590	0.561	J	ug/L		95	50 - 150
Bromacil	0.0984	0.102		ug/L		104	50 - 150
Butachlor	0.0492	0.0532		ug/L		108	50 - 150
Butylbenzylphthalate	0.492	0.520		ug/L		106	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-171223/20-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	0.0984	0.0878	J	ug/L		89	50 - 150
Chloroneb	0.0984	0.0932	J	ug/L		95	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0984	0.0897	J	ug/L		91	50 - 150
Chlorpyrifos	0.0492	0.0510		ug/L		104	50 - 150
Chrysene	0.0197	0.0198	J	ug/L		100	50 - 150
delta-BHC	0.0984	0.0894	J	ug/L		91	50 - 150
Di(2-ethylhexyl)adipate	0.590	0.579	J	ug/L		98	50 - 150
Dibenz(a,h)anthracene	0.0492	0.0453	J	ug/L		92	50 - 150
Diclorvos (DDVP)	0.0492	0.0566		ug/L		115	50 - 150
Dieldrin	0.00984	0.0100		ug/L		102	50 - 150
Diethylphthalate	0.492	0.527		ug/L		107	50 - 150
Dimethylphthalate	0.492	0.496		ug/L		101	50 - 150
Di-n-butyl phthalate	0.492	0.753	J	ug/L		153	49 - 243
Di-n-octyl phthalate	0.0984	0.0919	J	ug/L		93	50 - 150
Endosulfan I (Alpha)	0.0984	0.0887	J	ug/L		90	50 - 150
Endosulfan II (Beta)	0.0984	0.0852	J	ug/L		87	50 - 150
Endosulfan sulfate	0.0984	0.0893	J	ug/L		91	50 - 150
Endrin	0.00984	0.0113		ug/L		115	50 - 150
Endrin aldehyde	0.0984	0.112		ug/L		114	50 - 150
EPTC	0.0984	0.0914	J	ug/L		93	50 - 150
Fluoranthene	0.0984	0.0914	J	ug/L		93	50 - 150
Fluorene	0.0492	<0.049		ug/L		95	50 - 150
gamma-Chlordane	0.0246	0.0248	J	ug/L		101	50 - 150
Heptachlor	0.00984	0.00965	J	ug/L		98	50 - 150
Heptachlor epoxide (isomer B)	0.00984	0.00836	J	ug/L		85	50 - 150
Hexachlorobenzene	0.0492	0.0456	J	ug/L		93	50 - 150
Hexachlorocyclopentadiene	0.0492	0.0492		ug/L		100	50 - 150
Indeno[1,2,3-cd]pyrene	0.0492	0.0444	J	ug/L		90	50 - 150
Isophorone	0.0984	0.110		ug/L		112	50 - 150
Lindane	0.00984	0.0118		ug/L		120	50 - 150
Malathion	0.0984	0.103		ug/L		105	50 - 150
Methoxychlor	0.0492	0.0589		ug/L		120	50 - 150
Metolachlor	0.0492	0.0503		ug/L		102	50 - 150
Molinate	0.0984	0.0939	J	ug/L		95	50 - 150
Naphthalene	0.0984	0.0995		ug/L		101	50 - 150
Parathion	0.0984	0.0995		ug/L		101	50 - 150
Pendimethalin (Penoxaline)	0.0984	0.109		ug/L		110	50 - 150
Phenanthrene	0.0394	0.0378	J	ug/L		96	50 - 150
Propachlor	0.0492	0.0502		ug/L		102	50 - 150
Pyrene	0.0492	0.0477	J	ug/L		97	50 - 150
Simazine	0.0492	0.0453	J	ug/L		92	50 - 150
Terbacil	0.0984	0.110		ug/L		112	50 - 150
Terbutylazine	0.0984	0.0981		ug/L		100	50 - 150
Thiobencarb	0.0984	0.0963	J	ug/L		98	50 - 150
trans-Nonachlor	0.0246	<0.026		ug/L		95	50 - 150
Trifluralin	0.0984	0.105		ug/L		107	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-171223/20-A

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171223

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	85		70 - 130
Triphenylphosphate	101		70 - 130

Lab Sample ID: 380-168529-1 MS

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Halawa Shaft Viewing Pool

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.96	1.94		ug/L		99	70 - 130
2,4'-DDD	<0.097		1.96	2.11		ug/L		107	70 - 130
2,4'-DDE	<0.097		1.96	2.08		ug/L		106	70 - 130
2,4'-DDT	<0.097		1.96	1.99		ug/L		101	70 - 130
2,4-Dinitrotoluene	<0.097		1.96	2.17		ug/L		110	70 - 130
2,6-Dinitrotoluene	<0.097		1.96	2.01		ug/L		103	70 - 130
2-Methylnaphthalene	<0.097		1.96	1.82		ug/L		93	70 - 130
4,4'-DDD	<0.097		1.96	2.17		ug/L		111	70 - 130
4,4'-DDE	<0.097		1.96	1.97		ug/L		100	70 - 130
4,4'-DDT	<0.097		1.96	2.09		ug/L		106	70 - 130
Acenaphthene	<0.097		1.96	1.88		ug/L		96	70 - 130
Acenaphthylene	<0.097		1.96	1.94		ug/L		99	70 - 130
Acetochlor	<0.097		1.96	2.15		ug/L		110	70 - 130
Alachlor	<0.049		1.96	2.18		ug/L		111	70 - 130
alpha-BHC	<0.097		1.96	1.93		ug/L		98	70 - 130
alpha-Chlordane	<0.049		1.96	2.15		ug/L		109	70 - 130
Anthracene	<0.019		1.96	1.67		ug/L		85	70 - 130
Atrazine	<0.049		1.96	2.18		ug/L		111	70 - 130
Benz(a)anthracene	<0.049		1.96	1.97		ug/L		100	70 - 130
Benzo[a]pyrene	<0.019		1.96	1.85		ug/L		94	70 - 130
Benzo[b]fluoranthene	<0.019		1.96	1.99		ug/L		101	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	1.87		ug/L		95	70 - 130
Benzo[k]fluoranthene	<0.019		1.96	1.95		ug/L		99	70 - 130
beta-BHC	<0.097		1.96	2.17		ug/L		110	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.96	1.70		ug/L		86	70 - 130
Bromacil	<0.097		1.96	2.24		ug/L		114	70 - 130
Butachlor	<0.049		1.96	2.36		ug/L		120	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.13		ug/L		109	70 - 130
Chlorobenzilate	<0.097		1.96	2.16		ug/L		110	70 - 130
Chloroneb	<0.097		1.96	1.96		ug/L		100	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.96	2.05		ug/L		104	70 - 130
Chlorpyrifos	<0.049		1.96	2.19		ug/L		112	70 - 130
Chrysene	<0.019		1.96	2.04		ug/L		104	70 - 130
delta-BHC	<0.097		1.96	1.97		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.96	1.85		ug/L		94	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	1.71		ug/L		87	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.11		ug/L		107	70 - 130
Dieldrin	<0.0097		1.96	2.07		ug/L		105	70 - 130
Diethylphthalate	<0.49		1.96	2.07		ug/L		105	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-168529-1 MS

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Halawa Shaft Viewing Pool

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dimethylphthalate	<0.49		1.96	2.07		ug/L		106	70 - 130
Di-n-butyl phthalate	<0.97		3.93	4.77		ug/L		114	70 - 130
Di-n-octyl phthalate	<0.097		1.96	1.78		ug/L		90	70 - 130
Endosulfan I (Alpha)	<0.097		1.96	1.88		ug/L		96	70 - 130
Endosulfan II (Beta)	<0.097		1.96	2.01		ug/L		102	70 - 130
Endosulfan sulfate	<0.097		1.96	2.12		ug/L		108	70 - 130
Endrin	<0.0097		1.96	2.14		ug/L		109	70 - 130
Endrin aldehyde	<0.097		1.96	1.43		ug/L		73	60 - 130
EPTC	<0.097		1.96	1.98		ug/L		101	70 - 130
Fluoranthene	<0.097		1.96	2.16		ug/L		110	70 - 130
Fluorene	<0.049		1.96	1.95		ug/L		99	70 - 130
gamma-Chlordane	<0.049		1.96	2.13		ug/L		109	70 - 130
Heptachlor	<0.0097		1.96	2.15		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.96	2.16		ug/L		110	70 - 130
Hexachlorobenzene	<0.049		1.96	1.99		ug/L		101	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	1.91		ug/L		97	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.96	1.85		ug/L		94	70 - 130
Isophorone	<0.097		1.96	1.91		ug/L		97	70 - 130
Lindane	<0.0097		1.96	2.18		ug/L		111	70 - 130
Malathion	<0.097		1.96	2.18		ug/L		111	70 - 130
Methoxychlor	<0.049		1.96	2.27		ug/L		115	70 - 130
Metolachlor	<0.049		1.96	2.25		ug/L		114	70 - 130
Molinate	<0.097		1.96	2.07		ug/L		105	70 - 130
Naphthalene	<0.097		1.96	1.74		ug/L		88	70 - 130
Parathion	<0.097		1.96	2.25		ug/L		115	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.96	2.19		ug/L		111	70 - 130
Phenanthrene	<0.039		1.96	1.84		ug/L		94	70 - 130
Propachlor	<0.049		1.96	2.15		ug/L		109	70 - 130
Pyrene	<0.049		1.96	2.23		ug/L		113	70 - 130
Simazine	<0.049		1.96	2.32		ug/L		118	70 - 130
Terbacil	<0.097		1.96	2.27		ug/L		116	70 - 130
Terbutylazine	<0.097		1.96	2.34		ug/L		119	70 - 130
Thiobencarb	<0.097		1.96	2.26		ug/L		115	70 - 130
trans-Nonachlor	<0.049		1.96	2.12		ug/L		108	70 - 130
Trifluralin	<0.097		1.96	2.10		ug/L		107	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Nitro-m-xylene	92		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	105		70 - 130

Lab Sample ID: 380-168449-D-1-A DU

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 171223

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-168449-D-1-A DU

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
2,4'-DDE	<0.098		<0.098		ug/L		NC	20
2,4'-DDT	<0.098		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
4,4'-DDD	<0.098		<0.098		ug/L		NC	20
4,4'-DDE	<0.098		<0.098		ug/L		NC	20
4,4'-DDT	<0.098		<0.098		ug/L		NC	20
Acenaphthene	<0.098		<0.098		ug/L		NC	20
Acenaphthylene	<0.098		<0.098		ug/L		NC	20
Acetochlor	<0.098		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.098		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		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.098		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		<0.098		ug/L		NC	20
Chloroneb	<0.098		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.098		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		<0.098		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		<0.0098		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		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.098		ug/L		NC	20
Endrin	<0.0098		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.098		<0.098		ug/L		NC	20
EPTC	<0.098		<0.098		ug/L		NC	20
Fluoranthene	<0.098		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-168449-D-1-A DU

Matrix: Water

Analysis Batch: 171690

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 171223

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Heptachlor	<0.0098		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0098		ug/L		NC	20
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		<0.098		ug/L		NC	20
Lindane	<0.0098		<0.0098		ug/L		NC	20
Malathion	<0.098		<0.098		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		<0.098		ug/L		NC	20
Naphthalene	<0.098		<0.098		ug/L		NC	20
Parathion	<0.098		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.098		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		<0.098		ug/L		NC	20
Terbutylazine	<0.098		<0.098		ug/L		NC	20
Thiobencarb	<0.098		<0.098		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		<0.098		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	DU Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	84		70 - 130
Triphenylphosphate	104		70 - 130

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

Lab Sample ID: MB 570-617934/1-A

Matrix: Water

Analysis Batch: 623413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 617934

Tentatively Identified Compound	Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/28/25 08:30	09/10/25 10:00	1

Surrogate	%Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	78		33 - 139	08/28/25 08:30	09/10/25 10:00	1
2-Fluorobiphenyl (Surr)	79		33 - 126	08/28/25 08:30	09/10/25 10:00	1
2-Fluorophenol (Surr)	52		12 - 120	08/28/25 08:30	09/10/25 10:00	1
Nitrobenzene-d5 (Surr)	87		36 - 120	08/28/25 08:30	09/10/25 10:00	1
Phenol-d6 (Surr)	31		10 - 120	08/28/25 08:30	09/10/25 10:00	1
p-Terphenyl-d14 (Surr)	79		47 - 131	08/28/25 08:30	09/10/25 10:00	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 570-617934/1-A
Matrix: Water
Analysis Batch: 619301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617934

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
2-Methylnaphthalene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Acenaphthene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Acenaphthylene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Anthracene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Benzo[a]anthracene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Benzo[a]pyrene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Chrysene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Fluoranthene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Fluorene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Naphthalene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Phenanthrene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1
Pyrene	<0.20		0.20	ug/L		08/28/25 08:30	08/30/25 16:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		28 - 127	08/28/25 08:30	08/30/25 16:13	1
2-Fluorobiphenyl (Surr)	78		31 - 120	08/28/25 08:30	08/30/25 16:13	1
2-Fluorophenol (Surr)	53		17 - 120	08/28/25 08:30	08/30/25 16:13	1
Nitrobenzene-d5 (Surr)	81		27 - 120	08/28/25 08:30	08/30/25 16:13	1
Phenol-d6 (Surr)	32		10 - 120	08/28/25 08:30	08/30/25 16:13	1
p-Terphenyl-d14 (Surr)	76		45 - 120	08/28/25 08:30	08/30/25 16:13	1

Lab Sample ID: LCS 570-617934/2-A
Matrix: Water
Analysis Batch: 619301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	16.3		ug/L		82	47 - 120
2-Methylnaphthalene	20.0	16.0		ug/L		80	43 - 120
Acenaphthene	20.0	19.6		ug/L		98	60 - 132
Acenaphthylene	20.0	20.3		ug/L		102	54 - 126
Anthracene	20.0	19.4		ug/L		97	43 - 120
Benzo[a]anthracene	20.0	19.2		ug/L		96	42 - 133
Benzo[a]pyrene	20.0	20.6		ug/L		103	32 - 148
Benzo[b]fluoranthene	20.0	20.1		ug/L		101	42 - 140
Benzo[g,h,i]perylene	20.0	20.9		ug/L		104	1 - 195
Benzo[k]fluoranthene	20.0	20.4		ug/L		102	25 - 146
Chrysene	20.0	19.8		ug/L		99	44 - 140
Dibenz(a,h)anthracene	20.0	21.6		ug/L		108	1 - 200
Fluoranthene	20.0	20.2		ug/L		101	43 - 121
Fluorene	20.0	20.1		ug/L		100	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	19.7		ug/L		99	1 - 151
Naphthalene	20.0	16.1		ug/L		81	36 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-617934/2-A

Matrix: Water

Analysis Batch: 619301

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 617934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	20.0	19.4		ug/L		97	65 - 120
Pyrene	20.0	19.5		ug/L		98	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	63		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	72		45 - 120

Lab Sample ID: LCSD 570-617934/3-A

Matrix: Water

Analysis Batch: 619301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 617934

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	16.7		ug/L		84	47 - 120	3	20
2-Methylnaphthalene	20.0	16.6		ug/L		83	43 - 120	4	20
Acenaphthene	20.0	20.4		ug/L		102	60 - 132	4	29
Acenaphthylene	20.0	21.1		ug/L		106	54 - 126	4	45
Anthracene	20.0	20.2		ug/L		101	43 - 120	4	40
Benzo[a]anthracene	20.0	20.4		ug/L		102	42 - 133	6	32
Benzo[a]pyrene	20.0	21.7		ug/L		108	32 - 148	5	43
Benzo[b]fluoranthene	20.0	21.3		ug/L		106	42 - 140	6	43
Benzo[g,h,i]perylene	20.0	22.2		ug/L		111	1 - 195	6	61
Benzo[k]fluoranthene	20.0	21.0		ug/L		105	25 - 146	3	38
Chrysene	20.0	20.8		ug/L		104	44 - 140	5	53
Dibenz(a,h)anthracene	20.0	22.7		ug/L		114	1 - 200	5	75
Fluoranthene	20.0	21.3		ug/L		106	43 - 121	5	40
Fluorene	20.0	21.0		ug/L		105	70 - 120	4	23
Indeno[1,2,3-cd]pyrene	20.0	20.9		ug/L		104	1 - 151	6	60
Naphthalene	20.0	17.1		ug/L		85	36 - 120	6	39
Phenanthrene	20.0	20.4		ug/L		102	65 - 120	5	24
Pyrene	20.0	20.7		ug/L		104	70 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	92		28 - 127
2-Fluorobiphenyl (Surr)	78		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	77		45 - 120

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-168000-A-1-A MS

Matrix: Water

Analysis Batch: 619301

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 617934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.4	16.1		ug/L		83	36 - 120
2-Methylnaphthalene	<0.19		19.4	16.0		ug/L		82	32 - 124
Acenaphthene	<0.19		19.4	19.3		ug/L		99	47 - 145
Acenaphthylene	<0.19		19.4	20.0		ug/L		103	33 - 145
Anthracene	<0.19		19.4	19.1		ug/L		99	27 - 133
Benzo[a]anthracene	<0.19		19.4	19.0		ug/L		98	33 - 143
Benzo[a]pyrene	<0.19		19.4	19.9		ug/L		102	17 - 163
Benzo[b]fluoranthene	<0.19		19.4	19.8		ug/L		102	24 - 159
Benzo[g,h,i]perylene	<0.19		19.4	20.2		ug/L		104	1 - 219
Benzo[k]fluoranthene	<0.19		19.4	19.5		ug/L		101	11 - 162
Chrysene	<0.19		19.4	19.5		ug/L		100	17 - 168
Dibenz(a,h)anthracene	<0.19		19.4	20.3		ug/L		104	1 - 227
Fluoranthene	<0.19		19.4	20.3		ug/L		104	26 - 137
Fluorene	<0.19		19.4	20.2		ug/L		104	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.4	19.0		ug/L		98	1 - 171
Naphthalene	<0.19		19.4	16.1		ug/L		83	21 - 133
Phenanthrene	<0.19		19.4	19.3		ug/L		99	54 - 120
Pyrene	<0.19		19.4	19.5		ug/L		100	52 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	51		17 - 120
Nitrobenzene-d5 (Surr)	64		27 - 120
Phenol-d6 (Surr)	32		10 - 120
p-Terphenyl-d14 (Surr)	72		45 - 120

Lab Sample ID: 380-168000-A-1-B MSD

Matrix: Water

Analysis Batch: 619301

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 617934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.19		19.7	17.3		ug/L		88	36 - 120	7	30
2-Methylnaphthalene	<0.19		19.7	17.2		ug/L		88	32 - 124	7	30
Acenaphthene	<0.19		19.7	20.8		ug/L		106	47 - 145	7	48
Acenaphthylene	<0.19		19.7	21.5		ug/L		109	33 - 145	7	74
Anthracene	<0.19		19.7	20.1		ug/L		102	27 - 133	5	66
Benzo[a]anthracene	<0.19		19.7	20.3		ug/L		103	33 - 143	7	53
Benzo[a]pyrene	<0.19		19.7	21.7		ug/L		111	17 - 163	9	72
Benzo[b]fluoranthene	<0.19		19.7	20.8		ug/L		106	24 - 159	5	71
Benzo[g,h,i]perylene	<0.19		19.7	21.7		ug/L		110	1 - 219	7	97
Benzo[k]fluoranthene	<0.19		19.7	21.1		ug/L		107	11 - 162	8	63
Chrysene	<0.19		19.7	21.0		ug/L		107	17 - 168	7	87
Dibenz(a,h)anthracene	<0.19		19.7	22.0		ug/L		112	1 - 227	8	126
Fluoranthene	<0.19		19.7	21.2		ug/L		108	26 - 137	5	66
Fluorene	<0.19		19.7	21.3		ug/L		108	59 - 121	6	38
Indeno[1,2,3-cd]pyrene	<0.19		19.7	20.7		ug/L		105	1 - 171	9	99
Naphthalene	<0.19		19.7	17.4		ug/L		88	21 - 133	8	65

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-168000-A-1-B MSD

Matrix: Water

Analysis Batch: 619301

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 617934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	<0.19		19.7	20.5		ug/L		104	54 - 120	6	39
Pyrene	<0.19		19.7	20.9		ug/L		107	52 - 120	7	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	93		28 - 127
2-Fluorobiphenyl (Surr)	79		31 - 120
2-Fluorophenol (Surr)	56		17 - 120
Nitrobenzene-d5 (Surr)	68		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	76		45 - 120

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

Lab Sample ID: MB 570-622036/6

Matrix: Water

Analysis Batch: 622036

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			09/07/25 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67		38 - 134		09/07/25 12:09	1

Lab Sample ID: LCS 570-622036/4

Matrix: Water

Analysis Batch: 622036

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	330		ug/L		82	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	82		38 - 134

Lab Sample ID: LCSD 570-622036/5

Matrix: Water

Analysis Batch: 622036

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	330		ug/L		83	78 - 120	0	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		38 - 134

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 570-622036/3

Matrix: Water

Analysis Batch: 622036

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	<7.9		ug/L		72	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	72		38 - 134				

Lab Sample ID: 380-169530-C-1 MS

Matrix: Water

Analysis Batch: 622036

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	340		ug/L		85	68 - 122
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	87		38 - 134						

Lab Sample ID: 380-169530-C-1 MSD

Matrix: Water

Analysis Batch: 622036

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 Limits
Gasoline Range Organics (C4-C13)	<10		400	327		ug/L	-	82	68 - 122	4	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	86		38 - 134								

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

Lab Sample ID: MB 570-618766/1-A

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 618766

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		08/29/25 09:40	09/07/25 03:44	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/29/25 09:40	09/07/25 03:44	1
C8-C18	<25		25	ug/L		08/29/25 09:40	09/07/25 03:44	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
n-Octacosane (Surr)	112		60 - 130	08/29/25 09:40	09/07/25 03:44	1		

Lab Sample ID: LCS 570-618766/2-A

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 618766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	2000	2010		ug/L		101	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-618766/2-A

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 618766

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	101		60 - 130

Lab Sample ID: LCSD 570-618766/3-A

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 618766

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28			2000	2130		ug/L		106	56 - 127	6	23
Surrogate		LCSD									
n-Octacosane (Surr)		%Recovery	Qualifier	Limits							
		103		60 - 130							

Lab Sample ID: MRL 570-618766/4-A

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 618766

			Spike	MRL	MRL				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
C10-C28			0.0200	0.0221	J	mg/L		111	50 - 150		
Surrogate		MRL									
n-Octacosane (Surr)		%Recovery	Qualifier	Limits							
		87		60 - 130							

Lab Sample ID: 380-168000-C-1-A MS

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 618766

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
C10-C28	<26		2040	2350		ug/L		114	70 - 130		
Surrogate		MS									
n-Octacosane (Surr)		%Recovery	Qualifier	Limits							
		99		60 - 130							

Lab Sample ID: 380-168000-C-1-B MSD

Matrix: Water

Analysis Batch: 621987

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 618766

	Sample	Sample	Spike	MSD	MSD				%Rec	RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	<26		2050	2140		ug/L		103	70 - 130	10	20
Surrogate		MSD									
n-Octacosane (Surr)		%Recovery	Qualifier	Limits							
		111		60 - 130							

QC Association Summary

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

GC/MS Semi VOA

Prep Batch: 171223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	
MB 380-171223/19-A	Method Blank	Total/NA	Water	525.2	
LCS 380-171223/21-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-171223/22-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-171223/20-A	Lab Control Sample	Total/NA	Water	525.2	
380-168529-1 MS	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	
380-168449-D-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 171690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	171223
MB 380-171223/19-A	Method Blank	Total/NA	Water	525.2	171223
LCS 380-171223/21-A	Lab Control Sample	Total/NA	Water	525.2	171223
LCSD 380-171223/22-A	Lab Control Sample Dup	Total/NA	Water	525.2	171223
MRL 380-171223/20-A	Lab Control Sample	Total/NA	Water	525.2	171223
380-168529-1 MS	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	171223
380-168449-D-1-A DU	Duplicate	Total/NA	Water	525.2	171223

Prep Batch: 617934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	
MB 570-617934/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-617934/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-617934/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-168000-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-168000-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 619301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1 SIM	617934
MB 570-617934/1-A	Method Blank	Total/NA	Water	625.1 SIM	617934
LCS 570-617934/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	617934
LCSD 570-617934/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	617934
380-168000-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	617934
380-168000-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	617934

Analysis Batch: 623413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	617934
MB 570-617934/1-A	Method Blank	Total/NA	Water	625.1	617934

GC VOA

Analysis Batch: 622036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
380-168529-2	TB: Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-622036/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-622036/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-622036/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-622036/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

GC VOA (Continued)

Analysis Batch: 622036 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169530-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-169530-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 618766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	3510C	
MB 570-618766/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-618766/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-618766/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-618766/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-168000-C-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-168000-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 621987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-168529-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B	618766
MB 570-618766/1-A	Method Blank	Total/NA	Water	8015B	618766
LCS 570-618766/2-A	Lab Control Sample	Total/NA	Water	8015B	618766
LCSD 570-618766/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	618766
MRL 570-618766/4-A	Lab Control Sample	Total/NA	Water	8015B	618766
380-168000-C-1-A MS	Matrix Spike	Total/NA	Water	8015B	618766
380-168000-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	618766

Lab Chronicle

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

Job ID: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-1

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			171223	IQ42	EA POM	08/28/25 15:13
Total/NA	Analysis	525.2		1	171690	Q8LA	EA POM	08/31/25 10:24
Total/NA	Prep	625.1			617934	S4EA	EET CAL 4	08/29/25 04:42
Total/NA	Analysis	625.1		1	623413	PQS1	EET CAL 4	09/10/25 15:13
Total/NA	Prep	625.1			617934	S4EA	EET CAL 4	08/29/25 04:42
Total/NA	Analysis	625.1 SIM		1	619301	J7WE	EET CAL 4	08/31/25 01:41
Total/NA	Analysis	8015B GRO LL		1	622036	W4LC	EET CAL 4	09/07/25 13:00
Total/NA	Prep	3510C			618766	TVD6	EET CAL 4	08/29/25 09:41
Total/NA	Analysis	8015B		1	621987	H6FE	EET CAL 4	09/07/25 09:26

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-168529-2

Date Collected: 08/26/25 09:25

Matrix: Water

Date Received: 08/28/25 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	622036	W4LC	EET CAL 4	09/07/25 18:21

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: 380-168529-1
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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-168529-1
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
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
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: 380-168529-1
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: 380-168529-1
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-168529-1	Halawa Shaft Viewing Pool	Water	08/26/25 09:25	08/28/25 09:38	Hawaii
380-168529-2	TB: Halawa Shaft Viewing Pool	Water	08/26/25 09:25	08/28/25 09:38	Hawaii

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

Ver- 04/03/2024

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

Chain of Custody Record



Eny

Loc: 380

168529

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-168529-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 168529

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: 380-168529-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 168529

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 08/28/25 06:52 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	0.9
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	