

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

Generated 10/27/2025 11:23:56 PM

JOB DESCRIPTION

RED-HILL
Weekly: Halawa Shaft Viewing Pool

JOB NUMBER

380-177510-1

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



Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Generated
10/27/2025 11:23:56 PM



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	29
Lab Chronicle	31
Certification Summary	32
Method Summary	34
Sample Summary	35
Chain of Custody	36
Receipt Checklists	38

Definitions/Glossary

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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 VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

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: 380-177510-1

Job ID: 380-177510-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-177510-1

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 10/16/2025 10:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7°C, 3.0°C and 3.1°C.

GC/MS Semi VOA

Method 625.1_SIM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 570-642969 and analytical batch 570-646236 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 625.1_SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 570-642969 and analytical batch 570-646236 were outside control limits: (380-177173-A-1-A MS). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

Gasoline Range Organics

Method 8015B_GRO_LL: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-646066 recovered outside control limits for the following analyte: Gasoline Range Organics (C4-C13). Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analyte.

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-642798. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method: 3510_LL

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: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

No Detections.

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-2

No Detections.

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

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

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		10/22/25 07:33	10/23/25 15:27	1
2,4'-DDD	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
2,4'-DDE	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
2,4'-DDT	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
2-Methylnaphthalene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
4,4'-DDD	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
4,4'-DDE	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
4,4'-DDT	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Acenaphthene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Acenaphthylene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Acetochlor	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Alachlor	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
alpha-BHC	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
alpha-Chlordane	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Anthracene	<0.019		0.019	ug/L		10/22/25 07:33	10/23/25 15:27	1
Atrazine	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Benz(a)anthracene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Benzo[a]pyrene	<0.019		0.019	ug/L		10/22/25 07:33	10/23/25 15:27	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		10/22/25 07:33	10/23/25 15:27	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		10/22/25 07:33	10/23/25 15:27	1
beta-BHC	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		10/22/25 07:33	10/23/25 15:27	1
Bromacil	<0.097	^3+	0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Butachlor	<0.049	^3+	0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Butylbenzylphthalate	<0.49		0.49	ug/L		10/22/25 07:33	10/23/25 15:27	1
Chlorobenzilate	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Chloroneb	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Chlorpyrifos	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Chrysene	<0.019		0.019	ug/L		10/22/25 07:33	10/23/25 15:27	1
delta-BHC	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		10/22/25 07:33	10/23/25 15:27	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Dieldrin	<0.0097		0.0097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Diethylphthalate	<0.49		0.49	ug/L		10/22/25 07:33	10/23/25 15:27	1
Dimethylphthalate	<0.49		0.49	ug/L		10/22/25 07:33	10/23/25 15:27	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		10/22/25 07:33	10/23/25 15:27	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Endosulfan sulfate	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Endrin	<0.0097		0.0097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Endrin aldehyde	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
EPTC	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Fluoranthene	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

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		10/22/25 07:33	10/23/25 15:27	1
gamma-Chlordane	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Heptachlor	<0.0097		0.0097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Hexachlorobenzene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Isophorone	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Lindane	<0.0097		0.0097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Malathion	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Methoxychlor	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Metolachlor	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Molinate	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Naphthalene	<0.097	^3+	0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Parathion	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Phenanthrene	<0.039		0.039	ug/L		10/22/25 07:33	10/23/25 15:27	1
Propachlor	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Pyrene	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Simazine	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Terbacil	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Terbutylazine	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Thiobencarb	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		10/22/25 07:33	10/23/25 15:27	1
trans-Nonachlor	<0.049		0.049	ug/L		10/22/25 07:33	10/23/25 15:27	1
Trifluralin	<0.097		0.097	ug/L		10/22/25 07:33	10/23/25 15:27	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/22/25 07:33	10/23/25 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	10/22/25 07:33	10/23/25 15:27	1
Perylene-d12	88		70 - 130	10/22/25 07:33	10/23/25 15:27	1
Triphenylphosphate	110		70 - 130	10/22/25 07:33	10/23/25 15:27	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		10/20/25 06:11	10/26/25 08:01	1
2-Methylnaphthalene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Acenaphthene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Acenaphthylene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Anthracene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Benzo[a]anthracene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Benzo[a]pyrene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Chrysene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Fluoranthene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

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		10/20/25 06:11	10/26/25 08:01	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Naphthalene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Phenanthrene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1
Pyrene	<0.19		0.19	ug/L		10/20/25 06:11	10/26/25 08:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	69		28 - 127	10/20/25 06:11	10/26/25 08:01	1
2-Fluorobiphenyl (Surr)	65		31 - 120	10/20/25 06:11	10/26/25 08:01	1
2-Fluorophenol (Surr)	41		17 - 120	10/20/25 06:11	10/26/25 08:01	1
Nitrobenzene-d5 (Surr)	71		27 - 120	10/20/25 06:11	10/26/25 08:01	1
Phenol-d6 (Surr)	27		10 - 120	10/20/25 06:11	10/26/25 08:01	1
p-Terphenyl-d14 (Surr)	80		45 - 120	10/20/25 06:11	10/26/25 08:01	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
Butane, 2-chloro-2-methyl-	39	T J N	ug/L		1.92	594-36-5	10/20/25 06:11	10/26/25 07:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		33 - 139	10/20/25 06:11	10/26/25 07:49	1
2-Fluorobiphenyl (Surr)	83		33 - 126	10/20/25 06:11	10/26/25 07:49	1
2-Fluorophenol (Surr)	51		12 - 120	10/20/25 06:11	10/26/25 07:49	1
Nitrobenzene-d5 (Surr)	87		36 - 120	10/20/25 06:11	10/26/25 07:49	1
Phenol-d6 (Surr)	27		10 - 120	10/20/25 06:11	10/26/25 07:49	1
p-Terphenyl-d14 (Surr)	81		47 - 131	10/20/25 06:11	10/26/25 07:49	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			10/25/25 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		10/25/25 16:31	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		10/19/25 10:24	10/27/25 00:21	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/19/25 10:24	10/27/25 00:21	1
C8-C18	<25		25	ug/L		10/19/25 10:24	10/27/25 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 130	10/19/25 10:24	10/27/25 00:21	1

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-2

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

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			10/25/25 20:33	1

Client Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-2

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	85		38 - 134		10/25/25 20:33	1

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

Action Limit Summary

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

Job ID: 380-177510-1
 SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

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		Method	Prep Type
				Limit	RL		
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: 380-177510-1
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)
380-177510-1	HALAWA SHAFT VIEWING POOL	98	88	110
380-177835-A-1-B MS	Matrix Spike	99	104	127
380-177835-A-1-C MSD	Matrix Spike Duplicate	97	96	126
LCS 380-181349/21-A	Lab Control Sample	99	99	113
MB 380-181349/19-A	Method Blank	99	91	111
MRL 380-181349/20-A	Lab Control Sample	98	90	109

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)
380-177510-1	HALAWA SHAFT VIEWING POOL	77	83	51	87	27	81
MB 570-642969/1-A	Method Blank	89	87	60	93	34	83

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)
380-177173-A-1-A MS	Matrix Spike	48	44	29	44	20	50
380-177173-A-1-B MSD	Matrix Spike Duplicate	84	75	53	82	36	84
380-177510-1	HALAWA SHAFT VIEWING POOL	69	65	41	71	27	80
LCS 570-642969/2-A	Lab Control Sample	78	71	53	77	37	83
LCS 570-642969/3-A	Lab Control Sample Dup	81	75	58	70	40	83
MB 570-642969/1-A	Method Blank	76	68	50	78	33	73

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: 380-177510-1
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)
380-177510-1	HALAWA SHAFT VIEWING POOL	84
380-177510-2	TB: HALAWA SHAFT VIEWING POOL	85
380-178070-B-1 MS	Matrix Spike	81
380-178070-B-1 MSD	Matrix Spike Duplicate	83
LCS 570-646066/4	Lab Control Sample	78
LCSD 570 646066/5	Lab Control Sample Dup	81
MB 570-646066/6	Method Blank	79
MRL 570-646066/3	Lab Control Sample	80

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)
380-177510-1	HALAWA SHAFT VIEWING POOL	114
LCS 570-642798/2-A	Lab Control Sample	108
LCSD 570-642798/3-A	Lab Control Sample Dup	90
MB 570-642798/1-A	Method Blank	88
MRL 570-642798/4-A	Lab Control Sample	101

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-181349/19-A
Matrix: Water
Analysis Batch: 181662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 181349

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2,4'-DDD	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2,4'-DDE	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2,4'-DDT	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
2-Methylnaphthalene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
4,4'-DDD	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
4,4'-DDE	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
4,4'-DDT	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Acenaphthene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Acenaphthylene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Acetochlor	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Alachlor	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
alpha-BHC	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
alpha-Chlordane	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Anthracene	<0.020		0.020	ug/L		10/22/25 07:33	10/23/25 09:44	1
Atrazine	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Benz(a)anthracene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Benzo[a]pyrene	<0.020		0.020	ug/L		10/22/25 07:33	10/23/25 09:44	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		10/22/25 07:33	10/23/25 09:44	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		10/22/25 07:33	10/23/25 09:44	1
beta-BHC	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		10/22/25 07:33	10/23/25 09:44	1
Bromacil	<0.099	^3+	0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Butachlor	<0.050	^3+	0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Butylbenzylphthalate	<0.50		0.50	ug/L		10/22/25 07:33	10/23/25 09:44	1
Chlorobenzilate	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Chloroneb	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Chlorpyrifos	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Chrysene	<0.020		0.020	ug/L		10/22/25 07:33	10/23/25 09:44	1
delta-BHC	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		10/22/25 07:33	10/23/25 09:44	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Dieldrin	<0.0099		0.0099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Diethylphthalate	<0.50		0.50	ug/L		10/22/25 07:33	10/23/25 09:44	1
Dimethylphthalate	<0.50		0.50	ug/L		10/22/25 07:33	10/23/25 09:44	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		10/22/25 07:33	10/23/25 09:44	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Endosulfan sulfate	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Endrin	<0.0099		0.0099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Endrin aldehyde	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
EPTC	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-181349/19-A
Matrix: Water
Analysis Batch: 181662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 181349

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Fluorene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
gamma-Chlordane	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Heptachlor	<0.0099		0.0099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Hexachlorobenzene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Isophorone	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Lindane	<0.0099		0.0099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Malathion	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Methoxychlor	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Metolachlor	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Molinate	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Naphthalene	<0.099	^3+	0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Parathion	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Phenanthrene	<0.040		0.040	ug/L		10/22/25 07:33	10/23/25 09:44	1
Propachlor	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Pyrene	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Simazine	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Terbacil	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Terbutylazine	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Thiobencarb	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		10/22/25 07:33	10/23/25 09:44	1
trans-Nonachlor	<0.050		0.050	ug/L		10/22/25 07:33	10/23/25 09:44	1
Trifluralin	<0.099		0.099	ug/L		10/22/25 07:33	10/23/25 09:44	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Undecane	1.73	T J N	ug/L		3.13	1120-21-4	10/22/25 07:33	10/23/25 09:44	1
Unknown	1.12	T J	ug/L		3.88	N/A	10/22/25 07:33	10/23/25 09:44	1
Phenol, 4-(1,1-dimethylpropyl)-	0.612	T J N	ug/L		4.26	80-46-6	10/22/25 07:33	10/23/25 09:44	1
9-Octadecenamamide, (Z)-	1.48	T J N	ug/L		7.88	301-02-0	10/22/25 07:33	10/23/25 09:44	1
Unknown	0.899	T J	ug/L		10.40	N/A	10/22/25 07:33	10/23/25 09:44	1
Unknown	0.704	T J	ug/L		14.93	N/A	10/22/25 07:33	10/23/25 09:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	99		70 - 130	10/22/25 07:33	10/23/25 09:44	1
Perylene-d12	91		70 - 130	10/22/25 07:33	10/23/25 09:44	1
Triphenylphosphate	111		70 - 130	10/22/25 07:33	10/23/25 09:44	1

Lab Sample ID: LCS 380-181349/21-A
Matrix: Water
Analysis Batch: 181662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 181349

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.99	1.82		ug/L		91	70 - 130
2,4'-DDD	1.99	2.14		ug/L		107	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-181349/21-A

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
2,4'-DDE	1.99	2.11		ug/L		106	70 - 130
2,4'-DDT	1.99	2.05		ug/L		103	70 - 130
2,4-Dinitrotoluene	1.99	2.05		ug/L		103	70 - 130
2,6-Dinitrotoluene	1.99	2.09		ug/L		105	70 - 130
2-Methylnaphthalene	1.99	1.85		ug/L		93	70 - 130
4,4'-DDD	1.99	2.16		ug/L		108	70 - 130
4,4'-DDE	1.99	2.14		ug/L		108	70 - 130
4,4'-DDT	1.99	1.91		ug/L		96	70 - 130
Acenaphthene	1.99	1.93		ug/L		97	70 - 130
Acenaphthylene	1.99	1.93		ug/L		97	70 - 130
Acetochlor	1.99	2.23		ug/L		112	70 - 130
Alachlor	1.99	2.23		ug/L		112	70 - 130
alpha-BHC	1.99	2.02		ug/L		101	70 - 130
alpha-Chlordane	1.99	2.11		ug/L		106	70 - 130
Anthracene	1.99	1.98		ug/L		100	70 - 130
Atrazine	1.99	2.15		ug/L		108	70 - 130
Benz(a)anthracene	1.99	1.95		ug/L		98	70 - 130
Benzo[a]pyrene	1.99	2.01		ug/L		101	70 - 130
Benzo[b]fluoranthene	1.99	2.08		ug/L		105	70 - 130
Benzo[g,h,i]perylene	1.99	2.04		ug/L		103	70 - 130
Benzo[k]fluoranthene	1.99	1.93		ug/L		97	70 - 130
beta-BHC	1.99	1.98		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.20		ug/L		111	70 - 130
Bromacil	1.99	2.32		ug/L		117	70 - 130
Butachlor	1.99	2.21		ug/L		111	70 - 130
Butylbenzylphthalate	1.99	2.35		ug/L		118	70 - 130
Chlorobenzilate	1.99	2.31		ug/L		116	70 - 130
Chloroneb	1.99	1.85		ug/L		93	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.22		ug/L		112	70 - 130
Chlorpyrifos	1.99	2.22		ug/L		111	70 - 130
Chrysene	1.99	1.85		ug/L		93	70 - 130
delta-BHC	1.99	2.03		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.39		ug/L		120	70 - 130
Dibenz(a,h)anthracene	1.99	2.01		ug/L		101	70 - 130
Diclorvos (DDVP)	1.99	2.06		ug/L		103	70 - 130
Dieldrin	1.99	2.07		ug/L		104	70 - 130
Diethylphthalate	1.99	2.17		ug/L		109	70 - 130
Dimethylphthalate	1.99	2.15		ug/L		108	70 - 130
Di-n-butyl phthalate	3.98	4.49		ug/L		113	70 - 130
Di-n-octyl phthalate	1.99	2.20		ug/L		110	70 - 130
Endosulfan I (Alpha)	1.99	1.93		ug/L		97	70 - 130
Endosulfan II (Beta)	1.99	2.02		ug/L		102	70 - 130
Endosulfan sulfate	1.99	2.19		ug/L		110	70 - 130
Endrin	1.99	2.23		ug/L		112	70 - 130
Endrin aldehyde	1.99	2.11		ug/L		106	60 - 130
EPTC	1.99	2.11		ug/L		106	70 - 130
Fluoranthene	1.99	2.13		ug/L		107	70 - 130
Fluorene	1.99	1.95		ug/L		98	70 - 130
gamma-Chlordane	1.99	2.19		ug/L		110	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-181349/21-A

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	1.99	2.11		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.09		ug/L		105	70 - 130
Hexachlorobenzene	1.99	2.06		ug/L		103	70 - 130
Hexachlorocyclopentadiene	1.99	1.91		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.15		ug/L		108	70 - 130
Isophorone	1.99	2.05		ug/L		103	70 - 130
Lindane	1.99	1.95		ug/L		98	70 - 130
Malathion	1.99	2.15		ug/L		108	70 - 130
Methoxychlor	1.99	2.03		ug/L		102	70 - 130
Metolachlor	1.99	2.12		ug/L		106	70 - 130
Molinate	1.99	2.09		ug/L		105	70 - 130
Naphthalene	1.99	1.89		ug/L		95	70 - 130
Parathion	1.99	2.33		ug/L		117	70 - 130
Pendimethalin (Penoxaline)	1.99	2.10		ug/L		105	70 - 130
Phenanthrene	1.99	1.98		ug/L		99	70 - 130
Propachlor	1.99	2.21		ug/L		111	70 - 130
Pyrene	1.99	2.12		ug/L		107	70 - 130
Simazine	1.99	2.12		ug/L		107	70 - 130
Terbacil	1.99	2.35		ug/L		118	70 - 130
Terbutylazine	1.99	2.22		ug/L		112	70 - 130
Thiobencarb	1.99	2.22		ug/L		112	70 - 130
trans-Nonachlor	1.99	1.99		ug/L		100	70 - 130
Trifluralin	1.99	2.08		ug/L		104	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	113		70 - 130

Lab Sample ID: MRL 380-181349/20-A

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0989	0.124		ug/L		125	50 - 150
2,4'-DDD	0.0989	0.0937	J	ug/L		95	50 - 150
2,4'-DDE	0.0989	0.108		ug/L		109	50 - 150
2,4'-DDT	0.0989	0.104		ug/L		105	50 - 150
2,4-Dinitrotoluene	0.0989	0.127		ug/L		129	50 - 150
2,6-Dinitrotoluene	0.0989	0.147		ug/L		148	50 - 150
2-Methylnaphthalene	0.0989	0.114		ug/L		116	50 - 150
4,4'-DDD	0.0989	0.108		ug/L		110	50 - 150
4,4'-DDE	0.0989	0.105		ug/L		106	50 - 150
4,4'-DDT	0.0989	0.119		ug/L		121	50 - 150
Acenaphthene	0.0989	0.0971	J	ug/L		98	50 - 150
Acenaphthylene	0.0989	0.106		ug/L		107	50 - 150
Acetochlor	0.0989	0.131		ug/L		132	50 - 150
Alachlor	0.0494	0.0626		ug/L		127	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-181349/20-A

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
alpha-BHC	0.0989	0.111		ug/L		113	50 - 150
alpha-Chlordane	0.0247	0.0293	J	ug/L		118	50 - 150
Anthracene	0.0198	0.0238		ug/L		120	50 - 150
Atrazine	0.0494	0.0601		ug/L		122	50 - 150
Benz(a)anthracene	0.0494	0.0588		ug/L		119	50 - 150
Benzo[a]pyrene	0.0198	0.0276		ug/L		139	50 - 150
Benzo[b]fluoranthene	0.0198	0.0242		ug/L		123	50 - 150
Benzo[g,h,i]perylene	0.0494	0.0578		ug/L		117	50 - 150
Benzo[k]fluoranthene	0.0198	0.0233		ug/L		118	50 - 150
beta-BHC	0.0989	0.127		ug/L		129	50 - 150
Bis(2-ethylhexyl) phthalate	0.593	0.791		ug/L		133	50 - 150
Bromacil	0.0989	0.152	^3+	ug/L		154	50 - 150
Butachlor	0.0494	0.0768	^3+	ug/L		155	50 - 150
Butylbenzylphthalate	0.494	0.654		ug/L		132	50 - 150
Chlorobenzilate	0.0989	0.134		ug/L		135	50 - 150
Chloroneb	0.0989	0.117		ug/L		119	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0989	0.0981	J	ug/L		99	50 - 150
Chlorpyrifos	0.0494	0.0617		ug/L		125	50 - 150
Chrysene	0.0198	0.0221		ug/L		112	50 - 150
delta-BHC	0.0989	0.106		ug/L		108	50 - 150
Di(2-ethylhexyl)adipate	0.593	0.830		ug/L		140	50 - 150
Dibenz(a,h)anthracene	0.0494	0.0538		ug/L		109	50 - 150
Diclorvos (DDVP)	0.0494	0.0684		ug/L		138	50 - 150
Dieldrin	0.00989	0.0105		ug/L		107	50 - 150
Diethylphthalate	0.494	0.638		ug/L		129	50 - 150
Dimethylphthalate	0.494	0.598		ug/L		121	50 - 150
Di-n-butyl phthalate	0.494	0.688	J	ug/L		139	49 - 243
Di-n-octyl phthalate	0.0989	0.126		ug/L		128	50 - 150
Endosulfan I (Alpha)	0.0989	0.110		ug/L		111	50 - 150
Endosulfan II (Beta)	0.0989	0.106		ug/L		107	50 - 150
Endosulfan sulfate	0.0989	0.102		ug/L		103	50 - 150
Endrin	0.00989	0.0112		ug/L		113	50 - 150
Endrin aldehyde	0.0989	0.141		ug/L		143	50 - 150
EPTC	0.0989	0.114		ug/L		115	50 - 150
Fluoranthene	0.0989	0.117		ug/L		118	50 - 150
Fluorene	0.0494	0.0572		ug/L		116	50 - 150
gamma-Chlordane	0.0247	0.0295	J	ug/L		119	50 - 150
Heptachlor	0.00989	0.0106		ug/L		107	50 - 150
Heptachlor epoxide (isomer B)	0.00989	0.0117		ug/L		119	50 - 150
Hexachlorobenzene	0.0494	0.0538		ug/L		109	50 - 150
Hexachlorocyclopentadiene	0.0494	0.0477	J	ug/L		96	50 - 150
Indeno[1,2,3-cd]pyrene	0.0494	0.0640		ug/L		130	50 - 150
Isophorone	0.0989	0.136		ug/L		138	50 - 150
Lindane	0.00989	0.0134		ug/L		136	50 - 150
Malathion	0.0989	0.126		ug/L		127	50 - 150
Methoxychlor	0.0494	0.0655		ug/L		133	50 - 150
Metolachlor	0.0494	0.0681		ug/L		138	50 - 150
Molinate	0.0989	0.124		ug/L		125	50 - 150
Naphthalene	0.0989	0.163	^3+	ug/L		164	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-181349/20-A

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Parathion	0.0989	0.109		ug/L		110	50 - 150
Pendimethalin (Penoxaline)	0.0989	0.119		ug/L		120	50 - 150
Phenanthrene	0.0395	0.0425		ug/L		107	50 - 150
Propachlor	0.0494	0.0646		ug/L		131	50 - 150
Pyrene	0.0494	0.0567		ug/L		115	50 - 150
Simazine	0.0494	0.0557		ug/L		113	50 - 150
Terbacil	0.0989	0.142		ug/L		143	50 - 150
Terbutylazine	0.0989	0.118		ug/L		120	50 - 150
Thiobencarb	0.0989	0.124		ug/L		126	50 - 150
trans-Nonachlor	0.0247	0.0276	J	ug/L		112	50 - 150
Trifluralin	0.0989	0.129		ug/L		130	50 - 150

Surrogate	MRL		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: 380-177835-A-1-B MS

Matrix: Water

Analysis Batch: 181662

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 181349

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.099		1.96	1.82		ug/L		92	70 - 130
2,4'-DDD	<0.099		1.96	2.32		ug/L		118	70 - 130
2,4'-DDE	<0.099		1.96	2.18		ug/L		111	70 - 130
2,4'-DDT	<0.099		1.96	2.19		ug/L		112	70 - 130
2,4-Dinitrotoluene	<0.099		1.96	2.28		ug/L		116	70 - 130
2,6-Dinitrotoluene	<0.099		1.96	2.28		ug/L		116	70 - 130
2-Methylnaphthalene	<0.099		1.96	1.85		ug/L		94	70 - 130
4,4'-DDD	<0.099		1.96	2.41		ug/L		123	70 - 130
4,4'-DDE	<0.099		1.96	2.14		ug/L		109	70 - 130
4,4'-DDT	<0.099		1.96	1.94		ug/L		99	70 - 130
Acenaphthene	<0.099		1.96	1.93		ug/L		99	70 - 130
Acenaphthylene	<0.099		1.96	2.06		ug/L		105	70 - 130
Acetochlor	<0.099		1.96	2.41		ug/L		123	70 - 130
Alachlor	<0.049		1.96	2.44		ug/L		125	70 - 130
alpha-BHC	<0.099		1.96	2.03		ug/L		104	70 - 130
alpha-Chlordane	<0.049		1.96	2.31		ug/L		118	70 - 130
Anthracene	<0.020		1.96	2.02		ug/L		103	70 - 130
Atrazine	<0.049		1.96	2.13		ug/L		109	70 - 130
Benz(a)anthracene	<0.049		1.96	2.09		ug/L		106	70 - 130
Benzo[a]pyrene	<0.020	F1	1.96	2.88	F1	ug/L		147	70 - 130
Benzo[b]fluoranthene	<0.020	F1	1.96	2.88	F1	ug/L		147	70 - 130
Benzo[g,h,i]perylene	<0.049	F2 F1	1.96	2.58	F1	ug/L		132	70 - 130
Benzo[k]fluoranthene	<0.020	F1	1.96	2.64	F1	ug/L		135	70 - 130
beta-BHC	<0.099		1.96	2.07		ug/L		106	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59	F1	1.96	2.53		ug/L		129	70 - 130
Bromacil	<0.099	^3+ F1	1.96	2.58	F1	ug/L		132	70 - 130

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-177835-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 181662

Prep Batch: 181349

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Butachlor	<0.049	^3+	1.96	2.52		ug/L		129	70 - 130
Butylbenzylphthalate	<0.49	F1	1.96	2.53		ug/L		129	70 - 130
Chlorobenzilate	<0.099	F1	1.96	2.60	F1	ug/L		133	70 - 130
Chloroneb	<0.099		1.96	1.89		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.099		1.96	2.43		ug/L		124	70 - 130
Chlorpyrifos	<0.049		1.96	2.29		ug/L		117	70 - 130
Chrysene	<0.020		1.96	2.44		ug/L		125	70 - 130
delta-BHC	<0.099		1.96	2.20		ug/L		112	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.96	2.17		ug/L		111	70 - 130
Dibenz(a,h)anthracene	<0.049	F1	1.96	2.58	F1	ug/L		132	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.08		ug/L		106	70 - 130
Dieldrin	<0.0099		1.96	2.21		ug/L		113	70 - 130
Diethylphthalate	<0.49		1.96	2.28		ug/L		116	70 - 130
Dimethylphthalate	<0.49		1.96	2.21		ug/L		113	70 - 130
Di-n-butyl phthalate	<0.99		3.92	5.08		ug/L		123	70 - 130
Di-n-octyl phthalate	<0.099		1.96	2.19		ug/L		112	70 - 130
Endosulfan I (Alpha)	<0.099		1.96	1.98		ug/L		101	70 - 130
Endosulfan II (Beta)	<0.099		1.96	2.09		ug/L		107	70 - 130
Endosulfan sulfate	<0.099		1.96	2.47		ug/L		126	70 - 130
Endrin	<0.0099		1.96	2.44		ug/L		125	70 - 130
Endrin aldehyde	<0.099	F1 F2	1.96	1.22		ug/L		62	60 - 130
EPTC	<0.099		1.96	2.12		ug/L		108	70 - 130
Fluoranthene	<0.099		1.96	2.30		ug/L		117	70 - 130
Fluorene	<0.049		1.96	1.98		ug/L		101	70 - 130
gamma-Chlordane	<0.049		1.96	2.32		ug/L		119	70 - 130
Heptachlor	<0.0099		1.96	2.31		ug/L		118	70 - 130
Heptachlor epoxide (isomer B)	<0.0099		1.96	2.27		ug/L		116	70 - 130
Hexachlorobenzene	<0.049		1.96	2.06		ug/L		105	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	1.87		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049	F1	1.96	2.89	F1	ug/L		148	70 - 130
Isophorone	<0.099		1.96	2.09		ug/L		107	70 - 130
Lindane	<0.0099		1.96	2.00		ug/L		102	70 - 130
Malathion	<0.099		1.96	2.40		ug/L		122	70 - 130
Methoxychlor	<0.049	F1	1.96	3.07	F1	ug/L		157	70 - 130
Metolachlor	<0.049		1.96	2.28		ug/L		116	70 - 130
Molinate	<0.099		1.96	2.18		ug/L		111	70 - 130
Naphthalene	<0.099	^3+	1.96	1.86		ug/L		95	70 - 130
Parathion	<0.099	F1	1.96	2.73	F1	ug/L		139	70 - 130
Pendimethalin (Penoxaline)	<0.099	F1	1.96	2.67	F1	ug/L		136	70 - 130
Phenanthrene	<0.040		1.96	2.03		ug/L		104	70 - 130
Propachlor	<0.049		1.96	2.33		ug/L		119	70 - 130
Pyrene	<0.049		1.96	2.27		ug/L		116	70 - 130
Simazine	<0.049		1.96	2.10		ug/L		107	70 - 130
Terbacil	<0.099		1.96	2.48		ug/L		127	70 - 130
Terbutylazine	<0.099		1.96	2.32		ug/L		118	70 - 130
Thiobencarb	<0.099		1.96	2.39		ug/L		122	70 - 130
trans-Nonachlor	<0.049		1.96	2.17		ug/L		111	70 - 130
Trifluralin	<0.099		1.96	2.43		ug/L		124	70 - 130

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-177835-A-1-B MS
Matrix: Water
Analysis Batch: 181662

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 181349

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	104		70 - 130
Triphenylphosphate	127		70 - 130

Lab Sample ID: 380-177835-A-1-C MSD
Matrix: Water
Analysis Batch: 181662

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 181349

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	
				Result	Qualifier				Limits	RPD	Limit	
1-Methylnaphthalene	<0.099		1.96	1.81		ug/L		91	70 - 130	1	20	
2,4'-DDD	<0.099		1.96	2.26		ug/L		115	70 - 130	3	20	
2,4'-DDE	<0.099		1.96	2.10		ug/L		108	70 - 130	4	20	
2,4'-DDT	<0.099		1.96	2.18		ug/L		111	70 - 130	1	20	
2,4-Dinitrotoluene	<0.099		1.96	2.36		ug/L		121	70 - 130	3	20	
2,6-Dinitrotoluene	<0.099		1.96	2.31		ug/L		118	70 - 130	2	20	
2-Methylnaphthalene	<0.099		1.96	1.85		ug/L		94	70 - 130	0	20	
4,4'-DDD	<0.099		1.96	2.32		ug/L		119	70 - 130	4	20	
4,4'-DDE	<0.099		1.96	2.10		ug/L		107	70 - 130	2	20	
4,4'-DDT	<0.099		1.96	1.94		ug/L		99	70 - 130	0	20	
Acenaphthene	<0.099		1.96	1.92		ug/L		98	70 - 130	1	20	
Acenaphthylene	<0.099		1.96	2.02		ug/L		103	70 - 130	2	20	
Acetochlor	<0.099		1.96	2.35		ug/L		120	70 - 130	2	20	
Alachlor	<0.049		1.96	2.37		ug/L		121	70 - 130	3	20	
alpha-BHC	<0.099		1.96	1.99		ug/L		102	70 - 130	2	20	
alpha-Chlordane	<0.049		1.96	2.22		ug/L		114	70 - 130	4	20	
Anthracene	<0.020		1.96	1.95		ug/L		100	70 - 130	3	20	
Atrazine	<0.049		1.96	2.12		ug/L		108	70 - 130	0	20	
Benz(a)anthracene	<0.049		1.96	2.00		ug/L		102	70 - 130	4	20	
Benzo[a]pyrene	<0.020	F1	1.96	2.71	F1	ug/L		139	70 - 130	6	20	
Benzo[b]fluoranthene	<0.020	F1	1.96	2.80	F1	ug/L		143	70 - 130	3	20	
Benzo[g,h,i]perylene	<0.049	F2 F1	1.96	2.04	F2	ug/L		104	70 - 130	24	20	
Benzo[k]fluoranthene	<0.020	F1	1.96	2.47		ug/L		126	70 - 130	7	20	
beta-BHC	<0.099		1.96	2.04		ug/L		104	70 - 130	2	20	
Bis(2-ethylhexyl) phthalate	<0.59	F1	1.96	2.64	F1	ug/L		135	70 - 130	4	20	
Bromacil	<0.099	^3+ F1	1.96	2.48		ug/L		127	70 - 130	4	20	
Butachlor	<0.049	^3+	1.96	2.49		ug/L		127	70 - 130	1	20	
Butylbenzylphthalate	<0.49	F1	1.96	2.56	F1	ug/L		131	70 - 130	1	20	
Chlorobenzilate	<0.099	F1	1.96	2.54		ug/L		130	70 - 130	3	20	
Chloroneb	<0.099		1.96	1.87		ug/L		95	70 - 130	1	20	
Chlorothalonil (Draconil, Bravo)	<0.099		1.96	2.37		ug/L		121	70 - 130	3	20	
Chlorpyrifos	<0.049		1.96	2.30		ug/L		118	70 - 130	1	20	
Chrysene	<0.020		1.96	2.45		ug/L		125	70 - 130	0	20	
delta-BHC	<0.099		1.96	2.10		ug/L		107	70 - 130	5	20	
Di(2-ethylhexyl)adipate	<0.59		1.96	2.18		ug/L		112	70 - 130	0	20	
Dibenz(a,h)anthracene	<0.049	F1	1.96	2.17		ug/L		111	70 - 130	17	20	
Diclorvos (DDVP)	<0.049		1.96	2.18		ug/L		112	70 - 130	5	20	
Dieldrin	<0.0099		1.96	2.15		ug/L		110	70 - 130	3	20	
Diethylphthalate	<0.49		1.96	2.28		ug/L		116	70 - 130	0	20	

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-177835-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 181662

Prep Batch: 181349

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Dimethylphthalate	<0.49		1.96	2.19		ug/L		112	70 - 130	1	20
Di-n-butyl phthalate	<0.99		3.91	5.05		ug/L		122	70 - 130	1	20
Di-n-octyl phthalate	<0.099		1.96	2.29		ug/L		117	70 - 130	4	20
Endosulfan I (Alpha)	<0.099		1.96	2.01		ug/L		103	70 - 130	2	20
Endosulfan II (Beta)	<0.099		1.96	2.04		ug/L		104	70 - 130	3	20
Endosulfan sulfate	<0.099		1.96	2.37		ug/L		121	70 - 130	4	20
Endrin	<0.0099		1.96	2.36		ug/L		121	70 - 130	3	20
Endrin aldehyde	<0.099	F1 F2	1.96	0.752	F1 F2	ug/L		38	60 - 130	47	20
EPTC	<0.099		1.96	2.12		ug/L		108	70 - 130	0	20
Fluoranthene	<0.099		1.96	2.25		ug/L		115	70 - 130	2	20
Fluorene	<0.049		1.96	1.97		ug/L		101	70 - 130	0	20
gamma-Chlordane	<0.049		1.96	2.25		ug/L		115	70 - 130	3	20
Heptachlor	<0.0099		1.96	2.28		ug/L		117	70 - 130	1	20
Heptachlor epoxide (isomer B)	<0.0099		1.96	2.28		ug/L		117	70 - 130	0	20
Hexachlorobenzene	<0.049		1.96	2.05		ug/L		105	70 - 130	0	20
Hexachlorocyclopentadiene	<0.049		1.96	2.03		ug/L		104	70 - 130	8	20
Indeno[1,2,3-cd]pyrene	<0.049	F1	1.96	2.42		ug/L		123	70 - 130	18	20
Isophorone	<0.099		1.96	2.10		ug/L		107	70 - 130	1	20
Lindane	<0.0099		1.96	1.96		ug/L		100	70 - 130	2	20
Malathion	<0.099		1.96	2.29		ug/L		117	70 - 130	5	20
Methoxychlor	<0.049	F1	1.96	3.24	F1	ug/L		165	70 - 130	5	20
Metolachlor	<0.049		1.96	2.20		ug/L		113	70 - 130	3	20
Molinate	<0.099		1.96	2.14		ug/L		110	70 - 130	2	20
Naphthalene	<0.099	^3+	1.96	1.85		ug/L		94	70 - 130	1	20
Parathion	<0.099	F1	1.96	2.60	F1	ug/L		133	70 - 130	5	20
Pendimethalin (Penoxaline)	<0.099	F1	1.96	2.69	F1	ug/L		138	70 - 130	1	20
Phenanthrene	<0.040		1.96	2.00		ug/L		102	70 - 130	2	20
Propachlor	<0.049		1.96	2.34		ug/L		119	70 - 130	0	20
Pyrene	<0.049		1.96	2.21		ug/L		113	70 - 130	3	20
Simazine	<0.049		1.96	2.05		ug/L		105	70 - 130	3	20
Terbacil	<0.099		1.96	2.40		ug/L		122	70 - 130	4	20
Terbutylazine	<0.099		1.96	2.29		ug/L		117	70 - 130	1	20
Thiobencarb	<0.099		1.96	2.39		ug/L		122	70 - 130	0	20
trans-Nonachlor	<0.049		1.96	2.08		ug/L		106	70 - 130	4	20
Trifluralin	<0.099		1.96	2.52		ug/L		129	70 - 130	3	20
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
2-Nitro-m-xylene	97		70 - 130								
Perylene-d12	96		70 - 130								
Triphenylphosphate	126		70 - 130								

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 570-642969/1-A
Matrix: Water
Analysis Batch: 646232

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642969

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>10/20/25 06:11</i>	<i>10/26/25 04:12</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	89		33 - 139	10/20/25 06:11	10/26/25 04:12	1
<i>2-Fluorobiphenyl (Surr)</i>	87		33 - 126	10/20/25 06:11	10/26/25 04:12	1
<i>2-Fluorophenol (Surr)</i>	60		12 - 120	10/20/25 06:11	10/26/25 04:12	1
<i>Nitrobenzene-d5 (Surr)</i>	93		36 - 120	10/20/25 06:11	10/26/25 04:12	1
<i>Phenol-d6 (Surr)</i>	34		10 - 120	10/20/25 06:11	10/26/25 04:12	1
<i>p-Terphenyl-d14 (Surr)</i>	83		47 - 131	10/20/25 06:11	10/26/25 04:12	1

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

Lab Sample ID: MB 570-642969/1-A
Matrix: Water
Analysis Batch: 646236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642969

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1-Methylnaphthalene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
2-Methylnaphthalene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Acenaphthene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Acenaphthylene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Anthracene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Benzo[a]anthracene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Benzo[a]pyrene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Chrysene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Fluoranthene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Fluorene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Naphthalene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Phenanthrene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1
Pyrene	<0.20		0.20	ug/L		10/20/25 06:11	10/26/25 01:40	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	76		28 - 127	10/20/25 06:11	10/26/25 01:40	1
<i>2-Fluorobiphenyl (Surr)</i>	68		31 - 120	10/20/25 06:11	10/26/25 01:40	1
<i>2-Fluorophenol (Surr)</i>	50		17 - 120	10/20/25 06:11	10/26/25 01:40	1
<i>Nitrobenzene-d5 (Surr)</i>	78		27 - 120	10/20/25 06:11	10/26/25 01:40	1
<i>Phenol-d6 (Surr)</i>	33		10 - 120	10/20/25 06:11	10/26/25 01:40	1
<i>p-Terphenyl-d14 (Surr)</i>	73		45 - 120	10/20/25 06:11	10/26/25 01:40	1

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-642969/2-A

Matrix: Water

Analysis Batch: 646236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 642969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
1-Methylnaphthalene	20.0	15.1		ug/L		76	47 - 120	
2-Methylnaphthalene	20.0	14.9		ug/L		75	43 - 120	
Acenaphthene	20.0	14.3		ug/L		71	60 - 132	
Acenaphthylene	20.0	13.7		ug/L		68	54 - 126	
Anthracene	20.0	13.1		ug/L		66	43 - 120	
Benzo[a]anthracene	20.0	14.8		ug/L		74	42 - 133	
Benzo[a]pyrene	20.0	11.1		ug/L		56	32 - 148	
Benzo[b]fluoranthene	20.0	14.0		ug/L		70	42 - 140	
Benzo[g,h,i]perylene	20.0	14.8		ug/L		74	1 - 195	
Benzo[k]fluoranthene	20.0	13.4		ug/L		67	25 - 146	
Chrysene	20.0	15.2		ug/L		76	44 - 140	
Dibenz(a,h)anthracene	20.0	17.1		ug/L		85	1 - 200	
Fluoranthene	20.0	15.5		ug/L		77	43 - 121	
Fluorene	20.0	14.8		ug/L		74	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	15.4		ug/L		77	1 - 151	
Naphthalene	20.0	14.9		ug/L		74	36 - 120	
Phenanthrene	20.0	14.6		ug/L		73	65 - 120	
Pyrene	20.0	16.2		ug/L		81	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	78		28 - 127
2-Fluorobiphenyl (Surr)	71		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	77		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	83		45 - 120

Lab Sample ID: LCSD 570-642969/3-A

Matrix: Water

Analysis Batch: 646236

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 642969

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
									RPD	Limit
1-Methylnaphthalene	20.0	13.6		ug/L		68	47 - 120	11	20	
2-Methylnaphthalene	20.0	13.4		ug/L		67	43 - 120	10	20	
Acenaphthene	20.0	15.0		ug/L		75	60 - 132	5	29	
Acenaphthylene	20.0	15.2		ug/L		76	54 - 126	11	45	
Anthracene	20.0	14.8		ug/L		74	43 - 120	12	40	
Benzo[a]anthracene	20.0	15.5		ug/L		78	42 - 133	5	32	
Benzo[a]pyrene	20.0	15.0		ug/L		75	32 - 148	30	43	
Benzo[b]fluoranthene	20.0	15.5		ug/L		78	42 - 140	11	43	
Benzo[g,h,i]perylene	20.0	13.9		ug/L		69	1 - 195	6	61	
Benzo[k]fluoranthene	20.0	15.3		ug/L		76	25 - 146	13	38	
Chrysene	20.0	15.7		ug/L		78	44 - 140	3	53	
Dibenz(a,h)anthracene	20.0	14.4		ug/L		72	1 - 200	17	75	
Fluoranthene	20.0	16.2		ug/L		81	43 - 121	4	40	
Fluorene	20.0	15.5		ug/L		78	70 - 120	5	23	
Indeno[1,2,3-cd]pyrene	20.0	14.2		ug/L		71	1 - 151	8	60	
Naphthalene	20.0	13.0		ug/L		65	36 - 120	13	39	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 570-642969/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 646236

Prep Batch: 642969

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	15.0		ug/L		75	65 - 120	2	24
Pyrene	20.0	16.6		ug/L		83	70 - 120	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	81		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	70		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	83		45 - 120

Lab Sample ID: 380-177173-A-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 646236

Prep Batch: 642969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19	F2	19.5	8.19		ug/L		42	36 - 120
2-Methylnaphthalene	<0.19	F2	19.5	8.02		ug/L		41	32 - 124
Acenaphthene	<0.19	F1 F2	19.5	8.72	F1	ug/L		45	47 - 145
Acenaphthylene	<0.19		19.5	9.00		ug/L		46	33 - 145
Anthracene	<0.19		19.5	8.84		ug/L		45	27 - 133
Benzo[a]anthracene	<0.19		19.5	9.14		ug/L		47	33 - 143
Benzo[a]pyrene	<0.19		19.5	8.73		ug/L		45	17 - 163
Benzo[b]fluoranthene	<0.19		19.5	8.91		ug/L		46	24 - 159
Benzo[g,h,i]perylene	<0.19		19.5	7.66		ug/L		39	1 - 219
Benzo[k]fluoranthene	<0.19		19.5	8.88		ug/L		46	11 - 162
Chrysene	<0.19		19.5	9.23		ug/L		47	17 - 168
Dibenz(a,h)anthracene	<0.19		19.5	7.89		ug/L		40	1 - 227
Fluoranthene	<0.19		19.5	9.71		ug/L		50	26 - 137
Fluorene	<0.19	F1 F2	19.5	9.31	F1	ug/L		48	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.5	7.75		ug/L		40	1 - 171
Naphthalene	<0.19		19.5	7.81		ug/L		40	21 - 133
Phenanthrene	<0.19	F1 F2	19.5	9.00	F1	ug/L		46	54 - 120
Pyrene	<0.19	F1	19.5	9.98	F1	ug/L		51	52 - 120

Surrogate	MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	48		28 - 127
2-Fluorobiphenyl (Surr)	44		31 - 120
2-Fluorophenol (Surr)	29		17 - 120
Nitrobenzene-d5 (Surr)	44		27 - 120
Phenol-d6 (Surr)	20		10 - 120
p-Terphenyl-d14 (Surr)	50		45 - 120

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-177173-A-1-B MSD

Matrix: Water

Analysis Batch: 646236

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 642969

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1-Methylnaphthalene	<0.19	F2	19.4	15.9	F2	ug/L		82	36 - 120	64	30
2-Methylnaphthalene	<0.19	F2	19.4	15.8	F2	ug/L		81	32 - 124	65	30
Acenaphthene	<0.19	F1 F2	19.4	14.9	F2	ug/L		77	47 - 145	52	48
Acenaphthylene	<0.19		19.4	14.7		ug/L		76	33 - 145	48	74
Anthracene	<0.19		19.4	14.6		ug/L		75	27 - 133	49	66
Benzo[a]anthracene	<0.19		19.4	15.5		ug/L		80	33 - 143	51	53
Benzo[a]pyrene	<0.19		19.4	14.3		ug/L		74	17 - 163	49	72
Benzo[b]fluoranthene	<0.19		19.4	15.1		ug/L		78	24 - 159	52	71
Benzo[g,h,i]perylene	<0.19		19.4	13.4		ug/L		69	1 - 219	54	97
Benzo[k]fluoranthene	<0.19		19.4	14.7		ug/L		76	11 - 162	49	63
Chrysene	<0.19		19.4	15.6		ug/L		80	17 - 168	51	87
Dibenz(a,h)anthracene	<0.19		19.4	13.9		ug/L		72	1 - 227	55	126
Fluoranthene	<0.19		19.4	16.4		ug/L		84	26 - 137	51	66
Fluorene	<0.19	F1 F2	19.4	15.1	F2	ug/L		78	59 - 121	47	38
Indeno[1,2,3-cd]pyrene	<0.19		19.4	13.7		ug/L		71	1 - 171	56	99
Naphthalene	<0.19		19.4	15.3		ug/L		79	21 - 133	65	65
Phenanthrene	<0.19	F1 F2	19.4	15.1	F2	ug/L		78	54 - 120	50	39
Pyrene	<0.19	F1	19.4	16.4		ug/L		85	52 - 120	49	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	84		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	82		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	84		45 - 120

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

Lab Sample ID: MB 570-646066/6

Matrix: Water

Analysis Batch: 646066

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			10/25/25 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		38 - 134		10/25/25 12:55	1

Lab Sample ID: LCS 570-646066/4

Matrix: Water

Analysis Batch: 646066

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (C4-C13)	400	361		ug/L		90	78 - 120

QC Sample Results

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-646066/4
Matrix: Water
Analysis Batch: 646066

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	78		38 - 134

Lab Sample ID: LCSD 570-646066/5
Matrix: Water
Analysis Batch: 646066

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

Analyte		Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
			Result	Qualifier				Limits		
Gasoline Range Organics (C4-C13)		400	404	*1	ug/L		101	78 - 120	11	10

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		38 - 134

Lab Sample ID: MRL 570-646066/3
Matrix: Water
Analysis Batch: 646066

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

Analyte		Spike Added	MRL	MRL	Unit	D	%Rec	%Rec	RPD	Limit
			Result	Qualifier				Limits		
Gasoline Range Organics (C4-C13)		10.0	<7.9		ug/L		61	50 - 150		

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		38 - 134

Lab Sample ID: 380-178070-B-1 MS
Matrix: Water
Analysis Batch: 646066

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec	RPD	Limit
				Result	Qualifier				Limits		
Gasoline Range Organics (C4-C13)	<10	*1	400	359		ug/L		90	68 - 122		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		38 - 134

Lab Sample ID: 380-178070-B-1 MSD
Matrix: Water
Analysis Batch: 646066

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
				Result	Qualifier				Limits		
Gasoline Range Organics (C4-C13)	<10	*1	400	394		ug/L		99	68 - 122	9	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		38 - 134

QC Sample Results

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

Job ID: 380-177510-1
 SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 570-642798/1-A
Matrix: Water
Analysis Batch: 646397

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 642798

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		10/19/25 10:24	10/26/25 23:17	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/19/25 10:24	10/26/25 23:17	1
C8-C18	<25		25	ug/L		10/19/25 10:24	10/26/25 23:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n-Octacosane (Surr)</i>	88		60 - 130			10/19/25 10:24	10/26/25 23:17	1

Lab Sample ID: LCS 570-642798/2-A
Matrix: Water
Analysis Batch: 646397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642798

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1780		ug/L		111	56 - 127
Surrogate	%Recovery	Qualifier	Limits				
<i>n-Octacosane (Surr)</i>	108		60 - 130				

Lab Sample ID: LCSD 570-642798/3-A
Matrix: Water
Analysis Batch: 646397

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 642798

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
C10-C28	1600	1560		ug/L		97	56 - 127	13	23
Surrogate	%Recovery	Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	90		60 - 130						

Lab Sample ID: MRL 570-642798/4-A
Matrix: Water
Analysis Batch: 646397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 642798

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	0.0298		mg/L		149	50 - 150
Surrogate	%Recovery	Qualifier	Limits				
<i>n-Octacosane (Surr)</i>	101		60 - 130				

QC Association Summary

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

Job ID: 380-177510-1
 SDG: Weekly: Halawa Shaft Viewing Pool

GC/MS Semi VOA

Prep Batch: 181349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-181349/19-A	Method Blank	Total/NA	Water	525.2	
LCS 380-181349/21-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-181349/20-A	Lab Control Sample	Total/NA	Water	525.2	
380-177835-A-1-B MS	Matrix Spike	Total/NA	Water	525.2	
380-177835-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	

Analysis Batch: 181662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	181349
MB 380-181349/19-A	Method Blank	Total/NA	Water	525.2	181349
LCS 380-181349/21-A	Lab Control Sample	Total/NA	Water	525.2	181349
MRL 380-181349/20-A	Lab Control Sample	Total/NA	Water	525.2	181349
380-177835-A-1-B MS	Matrix Spike	Total/NA	Water	525.2	181349
380-177835-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	181349

Prep Batch: 642969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-642969/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-642969/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-642969/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-177173-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-177173-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 646232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	642969
MB 570-642969/1-A	Method Blank	Total/NA	Water	625.1	642969

Analysis Batch: 646236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	642969
MB 570-642969/1-A	Method Blank	Total/NA	Water	625.1 SIM	642969
LCS 570-642969/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	642969
LCSD 570-642969/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	642969
380-177173-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	642969
380-177173-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	642969

GC VOA

Analysis Batch: 646066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-177510-2	TB: HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
MB 570-646066/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-646066/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-646066/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-646066/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-178070-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-178070-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-177510-1
 SDG: Weekly: Halawa Shaft Viewing Pool

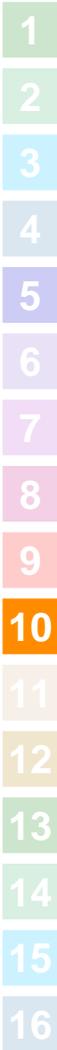
GC Semi VOA

Prep Batch: 642798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-642798/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-642798/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-642798/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-642798/4-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 646397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-177510-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	642798
MB 570-642798/1-A	Method Blank	Total/NA	Water	8015B	642798
LCS 570-642798/2-A	Lab Control Sample	Total/NA	Water	8015B	642798
LCSD 570-642798/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	642798
MRL 570-642798/4-A	Lab Control Sample	Total/NA	Water	8015B	642798



Lab Chronicle

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

Job ID: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-1

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			181349	OTM3	EA POM	10/22/25 07:33
Total/NA	Analysis	525.2		1	181662	Q8LA	EA POM	10/23/25 15:27
Total/NA	Prep	625.1			642969	H1SH	EET CAL 4	10/20/25 06:11
Total/NA	Analysis	625.1		1	646232	PQS1	EET CAL 4	10/26/25 07:49
Total/NA	Prep	625.1			642969	H1SH	EET CAL 4	10/20/25 06:11
Total/NA	Analysis	625.1 SIM		1	646236	PQS1	EET CAL 4	10/26/25 08:01
Total/NA	Analysis	8015B GRO LL		1	646066	YD9V	EET CAL 4	10/25/25 16:31
Total/NA	Prep	3510C			642798	TVD6	EET CAL 4	10/19/25 10:24
Total/NA	Analysis	8015B		1	646397	H6FE	EET CAL 4	10/27/25 00:21

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-177510-2

Date Collected: 10/14/25 09:30

Matrix: Water

Date Received: 10/16/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	646066	YD9V	EET CAL 4	10/25/25 20:33

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: 380-177510-1
 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

Accreditation/Certification Summary

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

Job ID: 380-177510-1
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	10-11-26

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

Method Summary

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

Job ID: 380-177510-1
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: 380-177510-1
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-177510-1	HALAWA SHAFT VIEWING POOL	Water	10/14/25 09:30	10/16/25 10:29	Hawaii
380-177510-2	TB: HALAWA SHAFT VIEWING POOL	Water	10/14/25 09:30	10/16/25 10:29	Hawaii

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

Eurofins Eaton Analytical Pomona

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

Chain of Custody Record



eurofins

Enviro

Loc: 380
177510

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Lopez, Maria		Carrier Tracking No(s): N/A		COC No: 380-265741.1																																																																				
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Maria.Lopez@et.eurofinsus.com		State of Origin: Hawaii		Page: Page 1 of 1																																																																				
Company: Eurofins Environment Testing Southwest				Address: 2841 Dow Avenue, Suite 100, Tustin, CA, 92780				Accreditations Required (See note): State - Hawaii		Job #: 380-177510-1																																																																		
Due Date Requested: 10/29/2025		TAT Requested (days): N/A		<table border="1"> <thead> <tr> <th colspan="10">Analysis Requested</th> </tr> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>8015B_GRO_LL_C60510C_LLHML Ranges: C10-C24/C24-C36/C8-C18</th> <th>8015B_GRO_LL6030C(MOD) GRO</th> <th>625.1_SIM625_Prep(MOD) Extended PAH List</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Total Number of Containers</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> </tbody> </table>						Analysis Requested										Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO_LL_C60510C_LLHML Ranges: C10-C24/C24-C36/C8-C18	8015B_GRO_LL6030C(MOD) GRO	625.1_SIM625_Prep(MOD) Extended PAH List						Total Number of Containers			X	X	X						7				X							2																							Preservation Codes:	
Analysis Requested																																																																												
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_GRO_LL_C60510C_LLHML Ranges: C10-C24/C24-C36/C8-C18	8015B_GRO_LL6030C(MOD) GRO							625.1_SIM625_Prep(MOD) Extended PAH List						Total Number of Containers																																																												
		X	X							X						7																																																												
			X													2																																																												
Project Name: RED-HILL		Project #: 38001111		PC #: N/A		WO #: N/A		Project #: 38001111		Other: N/A																																																																		
Site: Honolulu BWS Sites		SSOW#: N/A		Sample Type (C=comp, G=grab)		Matrix (Water, Sewage, Onwaste/OC, BT=Tissue, A=Air)		Special Instructions/Note:																																																																				
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Preservation Code:																																																																						
HALAWA SHAFT VIEWING POOL (380-177510-1)		10/14/25		09:30 Hawaiian		G Water				7 MRLs are needed. Confirm any hits >RL.																																																																		
TB: HALAWA SHAFT VIEWING POOL (380-177510-2)		10/14/25		09:30 Hawaiian		G Water				2 MRLs are needed.																																																																		



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

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 10/17/25 16:00		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Date/Time: 10-17-25 16:50	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2-1/2-3 FR2			



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-177510-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 177510

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: 380-177510-1
SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 177510

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 10/17/25 07:39 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ 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	2.3
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	