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# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
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Generated 11/26/2025 8:33:56 AM

## JOB DESCRIPTION

RED-HILL  
Weekly: Halawa Shaft Viewing Pool

## JOB NUMBER

380-181323-1

# 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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# Definitions/Glossary

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

Job ID: 380-181323-1  
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
S1+	Surrogate recovery exceeds control limits, high biased.

## 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: 380-181323-1

**Job ID: 380-181323-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-181323-1

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 11/6/2025 9:45 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 1.9°C.

### GC/MS Semi VOA

Method 625.1: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-653985.

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: One or more containers for the following sample was received broken or leaking: HALAWA SHAFT VIEWING POOL (380-181323-1). 8015B\_GRO - Received 1 of 3 vials broken, however enough volume was available for analysis.

Method 8015B\_GRO\_LL: The matrix spike and matrix spike duplicate (MS/MSD) associated with 570-254887-D-5 (parent sample) in analytical batch 570-656984 could not be reported due to parent sample was over diluted. The LCS/LCSD were performed and met acceptance criteria.

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: Surrogate recovery for the following sample was outside the upper control limit: HALAWA SHAFT VIEWING POOL (380-181323-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B\_DRO\_LL\_CS: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (380-181052-B-1-A MS) and (380-181052-B-1-B MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

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: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

No Detections.

**Client Sample ID: TB: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-2**

No Detections.

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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: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

Date Collected: 11/04/25 09:30

Matrix: Water

Date Received: 11/06/25 09:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2,4'-DDD	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2,4'-DDE	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2,4'-DDT	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2,4-Dinitrotoluene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2,6-Dinitrotoluene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
2-Methylnaphthalene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
4,4'-DDD	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
4,4'-DDE	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
4,4'-DDT	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Acenaphthene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Acenaphthylene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Acetochlor	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Alachlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
alpha-BHC	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
alpha-Chlordane	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Anthracene	<0.019		0.019	ug/L		11/13/25 12:55	11/14/25 10:07	1
Atrazine	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Benz(a)anthracene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Benzo[a]pyrene	<0.019		0.019	ug/L		11/13/25 12:55	11/14/25 10:07	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		11/13/25 12:55	11/14/25 10:07	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		11/13/25 12:55	11/14/25 10:07	1
beta-BHC	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		11/13/25 12:55	11/14/25 10:07	1
Bromacil	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Butachlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Butylbenzylphthalate	<0.48		0.48	ug/L		11/13/25 12:55	11/14/25 10:07	1
Chlorobenzilate	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Chloroneb	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Chlorothalonil (Draconil, Bravo)	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Chlorpyrifos	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Chrysene	<0.019		0.019	ug/L		11/13/25 12:55	11/14/25 10:07	1
delta-BHC	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		11/13/25 12:55	11/14/25 10:07	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Dieldrin	<0.0096		0.0096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Diethylphthalate	<0.48		0.48	ug/L		11/13/25 12:55	11/14/25 10:07	1
Dimethylphthalate	<0.48		0.48	ug/L		11/13/25 12:55	11/14/25 10:07	1
Di-n-butyl phthalate	<0.96		0.96	ug/L		11/13/25 12:55	11/14/25 10:07	1
Di-n-octyl phthalate	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Endosulfan I (Alpha)	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Endosulfan II (Beta)	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Endosulfan sulfate	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Endrin	<0.0096		0.0096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Endrin aldehyde	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
EPTC	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Fluoranthene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1

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# Client Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

Date Collected: 11/04/25 09:30

Matrix: Water

Date Received: 11/06/25 09:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
gamma-Chlordane	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Heptachlor	<0.0096		0.0096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Heptachlor epoxide (isomer B)	<0.0096		0.0096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Hexachlorobenzene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Isophorone	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Lindane	<0.0096		0.0096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Malathion	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Methoxychlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Metolachlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Molinate	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Naphthalene	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Parathion	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Pendimethalin (Penoxaline)	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Phenanthrene	<0.038		0.038	ug/L		11/13/25 12:55	11/14/25 10:07	1
Propachlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Pyrene	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Simazine	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Terbacil	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Terbutylazine	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Thiobencarb	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		11/13/25 12:55	11/14/25 10:07	1
trans-Nonachlor	<0.048		0.048	ug/L		11/13/25 12:55	11/14/25 10:07	1
Trifluralin	<0.096		0.096	ug/L		11/13/25 12:55	11/14/25 10:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	11/13/25 12:55	11/14/25 10:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	11/13/25 12:55	11/14/25 10:07	1
Perylene-d12	92		70 - 130	11/13/25 12:55	11/14/25 10:07	1
Triphenylphosphate	104		70 - 130	11/13/25 12:55	11/14/25 10:07	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		11/10/25 14:12	11/20/25 10:06	1
2-Methylnaphthalene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Acenaphthene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Acenaphthylene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Anthracene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Benzo[a]anthracene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Benzo[a]pyrene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Chrysene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Fluoranthene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

Date Collected: 11/04/25 09:30

Matrix: Water

Date Received: 11/06/25 09:45

**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		11/10/25 14:12	11/20/25 10:06	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Naphthalene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Phenanthrene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1
Pyrene	<0.19		0.19	ug/L		11/10/25 14:12	11/20/25 10:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	93		28 - 127	11/10/25 14:12	11/20/25 10:06	1
2-Fluorobiphenyl (Surr)	75		31 - 120	11/10/25 14:12	11/20/25 10:06	1
2-Fluorophenol (Surr)	47		17 - 120	11/10/25 14:12	11/20/25 10:06	1
Nitrobenzene-d5 (Surr)	77		27 - 120	11/10/25 14:12	11/20/25 10:06	1
Phenol-d6 (Surr)	31		10 - 120	11/10/25 14:12	11/20/25 10:06	1
p-Terphenyl-d14 (Surr)	76		45 - 120	11/10/25 14:12	11/20/25 10:06	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
1,2-Phenylene diisothiocyanate	2.3	T J N	ug/L		6.93	71105-17-4	11/10/25 14:12	11/20/25 14:16	1
Cyclic octaatomic sulfur	5.8	T J N	ug/L		9.96	10544-50-0	11/10/25 14:12	11/20/25 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		33 - 139	11/10/25 14:12	11/20/25 14:16	1
2-Fluorobiphenyl (Surr)	90		33 - 126	11/10/25 14:12	11/20/25 14:16	1
2-Fluorophenol (Surr)	47		12 - 120	11/10/25 14:12	11/20/25 14:16	1
Nitrobenzene-d5 (Surr)	80		36 - 120	11/10/25 14:12	11/20/25 14:16	1
Phenol-d6 (Surr)	28		10 - 120	11/10/25 14:12	11/20/25 14:16	1
p-Terphenyl-d14 (Surr)	88		47 - 131	11/10/25 14:12	11/20/25 14:16	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			11/16/25 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		38 - 134		11/16/25 21:34	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		11/09/25 11:05	11/18/25 01:28	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		11/09/25 11:05	11/18/25 01:28	1
C8-C18	<25		25	ug/L		11/09/25 11:05	11/18/25 01:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	135	S1+	60 - 130	11/09/25 11:05	11/18/25 01:28	1

**Client Sample ID: TB: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-2**

Date Collected: 11/04/25 09:30

Matrix: Water

Date Received: 11/06/25 09:45

**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			11/16/25 19:00	1

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# Client Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: TB: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-2**

**Date Collected: 11/04/25 09:30**

**Matrix: Water**

**Date Received: 11/06/25 09:45**

<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)	96		38 - 134		11/16/25 19:00	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: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

## Compliance Check

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

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

# Surrogate Summary

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

Job ID: 380-181323-1  
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)
380-181323-1	HALAWA SHAFT VIEWING POC	95	92	104
380-181879-AG-1-A MS	Matrix Spike	99	100	110
380-182102-O-1-A DU	Duplicate	100	96	107
LCS 380-186277/22-A	Lab Control Sample	100	100	112
MB 380-186277/20-A	Method Blank	100	93	107
MRL 380-186277/21-A	Lab Control Sample	99	96	106

**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)
380-181323-1	HALAWA SHAFT VIEWING POC	76	90	47	80	28	88
MB 570-653985/1-A	Method Blank	67	84	50	74	31	78

**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)
380-181323-1	HALAWA SHAFT VIEWING POC	93	75	47	77	31	76
LCS 570-653985/2-A	Lab Control Sample	85	72	57	66	38	88
LCSD 570-653985/3-A	Lab Control Sample Dup	100	91	63	73	41	91
MB 570-653985/1-A	Method Blank	84	69	55	79	35	80

**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: 380-181323-1  
 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)
380-181323-1	HALAWA SHAFT VIEWING POC	96
380-181323-2	TB: HALAWA SHAFT VIEWING POOL	96
570-254887-D-5 MS	Matrix Spike	93
570-254887-D-5 MSD	Matrix Spike Duplicate	94
LCS 570-656984/4	Lab Control Sample	90
LCSD 570 656984/5	Lab Control Sample Dup	92
MB 570-656984/6	Method Blank	94
MRL 570-656984/3	Lab Control Sample	93

**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)
380-181052-B-1-A MS	Matrix Spike	132 S1+
380-181052-B-1-B MSD	Matrix Spike Duplicate	134 S1+
380-181323-1	HALAWA SHAFT VIEWING POOL	135 S1+
LCS 570-653516/2-A	Lab Control Sample	115
LCSD 570-653516/3-A	Lab Control Sample Dup	102
MB 570-653516/1-A	Method Blank	94
MRL 570-653516/4-A	Lab Control Sample	88

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-181323-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 380-186277/20-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2,4'-DDD	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2,4'-DDE	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2,4'-DDT	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
2-Methylnaphthalene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
4,4'-DDD	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
4,4'-DDE	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
4,4'-DDT	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Acenaphthene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Acenaphthylene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Acetochlor	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Alachlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
alpha-BHC	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
alpha-Chlordane	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Anthracene	<0.020		0.020	ug/L		11/13/25 12:55	11/14/25 07:46	1
Atrazine	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Benz(a)anthracene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Benzo[a]pyrene	<0.020		0.020	ug/L		11/13/25 12:55	11/14/25 07:46	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		11/13/25 12:55	11/14/25 07:46	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		11/13/25 12:55	11/14/25 07:46	1
beta-BHC	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		11/13/25 12:55	11/14/25 07:46	1
Bromacil	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Butachlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Butylbenzylphthalate	<0.49		0.49	ug/L		11/13/25 12:55	11/14/25 07:46	1
Chlorobenzilate	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Chloroneb	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Chlorpyrifos	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Chrysene	<0.020		0.020	ug/L		11/13/25 12:55	11/14/25 07:46	1
delta-BHC	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		11/13/25 12:55	11/14/25 07:46	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Dieldrin	<0.0098		0.0098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Diethylphthalate	<0.49		0.49	ug/L		11/13/25 12:55	11/14/25 07:46	1
Dimethylphthalate	<0.49		0.49	ug/L		11/13/25 12:55	11/14/25 07:46	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		11/13/25 12:55	11/14/25 07:46	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Endosulfan sulfate	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Endrin	<0.0098		0.0098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Endrin aldehyde	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
EPTC	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1

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# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 380-186277/20-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Fluorene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
gamma-Chlordane	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Heptachlor	<0.0098		0.0098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Hexachlorobenzene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Isophorone	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Lindane	<0.0098		0.0098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Malathion	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Methoxychlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Metolachlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Molinate	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Naphthalene	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Parathion	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Phenanthrene	<0.039		0.039	ug/L		11/13/25 12:55	11/14/25 07:46	1
Propachlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Pyrene	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Simazine	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Terbacil	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Terbutylazine	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Thiobencarb	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		11/13/25 12:55	11/14/25 07:46	1
trans-Nonachlor	<0.049		0.049	ug/L		11/13/25 12:55	11/14/25 07:46	1
Trifluralin	<0.098		0.098	ug/L		11/13/25 12:55	11/14/25 07:46	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Undecane	2.00	T J N	ug/L		3.10	1120-21-4	11/13/25 12:55	11/14/25 07:46	1
Phenol, p-tert-butyl-	0.552	T J N	ug/L		3.83	98-54-4	11/13/25 12:55	11/14/25 07:46	1
9-Octadecenamamide, (Z)-	3.20	T J N	ug/L		7.81	301-02-0	11/13/25 12:55	11/14/25 07:46	1
Unknown	0.716	T J	ug/L		14.80	N/A	11/13/25 12:55	11/14/25 07:46	1
Unknown	0.500	T J	ug/L		15.67	N/A	11/13/25 12:55	11/14/25 07:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	100		70 - 130	11/13/25 12:55	11/14/25 07:46	1
Perylene-d12	93		70 - 130	11/13/25 12:55	11/14/25 07:46	1
Triphenylphosphate	107		70 - 130	11/13/25 12:55	11/14/25 07:46	1

**Lab Sample ID: LCS 380-186277/22-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.96	1.84		ug/L		94	70 - 130
2,4'-DDD	1.96	2.08		ug/L		106	70 - 130
2,4'-DDE	1.96	2.08		ug/L		106	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 380-186277/22-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDT	1.96	2.11		ug/L		108	70 - 130
2,4-Dinitrotoluene	1.96	2.02		ug/L		103	70 - 130
2,6-Dinitrotoluene	1.96	2.03		ug/L		104	70 - 130
2-Methylnaphthalene	1.96	1.84		ug/L		94	70 - 130
4,4'-DDD	1.96	2.13		ug/L		108	70 - 130
4,4'-DDE	1.96	2.11		ug/L		107	70 - 130
4,4'-DDT	1.96	1.96		ug/L		100	70 - 130
Acenaphthene	1.96	1.95		ug/L		99	70 - 130
Acenaphthylene	1.96	1.93		ug/L		98	70 - 130
Acetochlor	1.96	2.21		ug/L		112	70 - 130
Alachlor	1.96	2.17		ug/L		111	70 - 130
alpha-BHC	1.96	1.98		ug/L		101	70 - 130
alpha-Chlordane	1.96	2.14		ug/L		109	70 - 130
Anthracene	1.96	1.94		ug/L		99	70 - 130
Atrazine	1.96	2.09		ug/L		107	70 - 130
Benz(a)anthracene	1.96	1.89		ug/L		96	70 - 130
Benzo[a]pyrene	1.96	1.97		ug/L		100	70 - 130
Benzo[b]fluoranthene	1.96	2.01		ug/L		103	70 - 130
Benzo[g,h,i]perylene	1.96	2.05		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.96	1.90		ug/L		97	70 - 130
beta-BHC	1.96	1.98		ug/L		101	70 - 130
Bis(2-ethylhexyl) phthalate	1.96	2.14		ug/L		109	70 - 130
Bromacil	1.96	1.83		ug/L		93	70 - 130
Butachlor	1.96	2.20		ug/L		112	70 - 130
Butylbenzylphthalate	1.96	2.31		ug/L		118	70 - 130
Chlorobenzilate	1.96	2.23		ug/L		114	70 - 130
Chloroneb	1.96	1.86		ug/L		95	70 - 130
Chlorothalonil (Draconil, Bravo)	1.96	2.20		ug/L		112	70 - 130
Chlorpyrifos	1.96	2.25		ug/L		114	70 - 130
Chrysene	1.96	1.77		ug/L		90	70 - 130
delta-BHC	1.96	1.99		ug/L		101	70 - 130
Di(2-ethylhexyl)adipate	1.96	2.38		ug/L		121	70 - 130
Dibenz(a,h)anthracene	1.96	2.04		ug/L		104	70 - 130
Diclorvos (DDVP)	1.96	2.00		ug/L		102	70 - 130
Dieldrin	1.96	2.03		ug/L		103	70 - 130
Diethylphthalate	1.96	2.15		ug/L		110	70 - 130
Dimethylphthalate	1.96	2.07		ug/L		105	70 - 130
Di-n-butyl phthalate	3.93	4.35		ug/L		111	70 - 130
Di-n-octyl phthalate	1.96	2.20		ug/L		112	70 - 130
Endosulfan I (Alpha)	1.96	1.91		ug/L		97	70 - 130
Endosulfan II (Beta)	1.96	1.96		ug/L		100	70 - 130
Endosulfan sulfate	1.96	2.19		ug/L		111	70 - 130
Endrin	1.96	2.19		ug/L		111	70 - 130
Endrin aldehyde	1.96	1.92		ug/L		98	60 - 130
EPTC	1.96	2.10		ug/L		107	70 - 130
Fluoranthene	1.96	2.14		ug/L		109	70 - 130
Fluorene	1.96	1.97		ug/L		100	70 - 130
gamma-Chlordane	1.96	2.19		ug/L		112	70 - 130
Heptachlor	1.96	2.09		ug/L		106	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 380-186277/22-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide (isomer B)	1.96	2.01		ug/L		102	70 - 130
Hexachlorobenzene	1.96	2.03		ug/L		103	70 - 130
Hexachlorocyclopentadiene	1.96	2.05		ug/L		104	70 - 130
Indeno[1,2,3-cd]pyrene	1.96	2.16		ug/L		110	70 - 130
Isophorone	1.96	2.14		ug/L		109	70 - 130
Lindane	1.96	1.89		ug/L		96	70 - 130
Malathion	1.96	2.05		ug/L		105	70 - 130
Methoxychlor	1.96	2.01		ug/L		103	70 - 130
Metolachlor	1.96	2.04		ug/L		104	70 - 130
Molinate	1.96	2.10		ug/L		107	70 - 130
Naphthalene	1.96	1.90		ug/L		97	70 - 130
Parathion	1.96	2.42		ug/L		123	70 - 130
Pendimethalin (Penoxaline)	1.96	2.24		ug/L		114	70 - 130
Phenanthrene	1.96	1.97		ug/L		100	70 - 130
Propachlor	1.96	2.19		ug/L		112	70 - 130
Pyrene	1.96	2.10		ug/L		107	70 - 130
Simazine	1.96	1.93		ug/L		98	70 - 130
Terbacil	1.96	2.03		ug/L		103	70 - 130
Terbutylazine	1.96	2.19		ug/L		111	70 - 130
Thiobencarb	1.96	2.30		ug/L		117	70 - 130
trans-Nonachlor	1.96	2.03		ug/L		103	70 - 130
Trifluralin	1.96	2.12		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	112		70 - 130

**Lab Sample ID: MRL 380-186277/21-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0985	0.114		ug/L		116	50 - 150
2,4'-DDD	0.0985	0.0848	J	ug/L		86	50 - 150
2,4'-DDE	0.0985	0.100		ug/L		101	50 - 150
2,4'-DDT	0.0985	0.0918	J	ug/L		93	50 - 150
2,4-Dinitrotoluene	0.0985	0.114		ug/L		116	50 - 150
2,6-Dinitrotoluene	0.0985	0.135		ug/L		137	50 - 150
2-Methylnaphthalene	0.0985	0.105		ug/L		107	50 - 150
4,4'-DDD	0.0985	0.0976	J	ug/L		99	50 - 150
4,4'-DDE	0.0985	0.0986	J	ug/L		100	50 - 150
4,4'-DDT	0.0985	0.110		ug/L		112	50 - 150
Acenaphthene	0.0985	0.0907	J	ug/L		92	50 - 150
Acenaphthylene	0.0985	0.0946	J	ug/L		96	50 - 150
Acetochlor	0.0985	0.119		ug/L		121	50 - 150
Alachlor	0.0493	0.0532		ug/L		108	50 - 150
alpha-BHC	0.0985	0.103		ug/L		104	50 - 150

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# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MRL 380-186277/21-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
alpha-Chlordane	0.0246	<0.029		ug/L		103	50 - 150
Anthracene	0.0197	0.0221		ug/L		112	50 - 150
Atrazine	0.0493	0.0478	J	ug/L		97	50 - 150
Benz(a)anthracene	0.0493	0.0425	J	ug/L		86	50 - 150
Benzo[a]pyrene	0.0197	0.0255		ug/L		129	50 - 150
Benzo[b]fluoranthene	0.0197	0.0245		ug/L		125	50 - 150
Benzo[g,h,i]perylene	0.0493	0.0570		ug/L		116	50 - 150
Benzo[k]fluoranthene	0.0197	0.0268		ug/L		136	50 - 150
beta-BHC	0.0985	0.107		ug/L		108	50 - 150
Bis(2-ethylhexyl) phthalate	0.591	0.702		ug/L		119	50 - 150
Bromacil	0.0985	0.118		ug/L		120	50 - 150
Butachlor	0.0493	0.0727		ug/L		148	50 - 150
Butylbenzylphthalate	0.493	0.617		ug/L		125	50 - 150
Chlorobenzilate	0.0985	0.116		ug/L		118	50 - 150
Chloroneb	0.0985	0.0973	J	ug/L		99	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0985	0.0908	J	ug/L		92	50 - 150
Chlorpyrifos	0.0493	0.0554		ug/L		112	50 - 150
Chrysene	0.0197	0.0205		ug/L		104	50 - 150
delta-BHC	0.0985	0.0936	J	ug/L		95	50 - 150
Di(2-ethylhexyl)adipate	0.591	0.761		ug/L		129	50 - 150
Dibenz(a,h)anthracene	0.0493	0.0527		ug/L		107	50 - 150
Diclorvos (DDVP)	0.0493	0.0578		ug/L		117	50 - 150
Dieldrin	0.00985	0.00886	J	ug/L		90	50 - 150
Diethylphthalate	0.493	0.560		ug/L		114	50 - 150
Dimethylphthalate	0.493	0.530		ug/L		108	50 - 150
Di-n-butyl phthalate	0.493	0.582	J	ug/L		118	49 - 243
Di-n-octyl phthalate	0.0985	0.114		ug/L		115	50 - 150
Endosulfan I (Alpha)	0.0985	0.0955	J	ug/L		97	50 - 150
Endosulfan II (Beta)	0.0985	0.0877	J	ug/L		89	50 - 150
Endosulfan sulfate	0.0985	0.105		ug/L		106	50 - 150
Endrin	0.00985	0.0136		ug/L		138	50 - 150
Endrin aldehyde	0.0985	0.128		ug/L		130	50 - 150
EPTC	0.0985	0.106		ug/L		108	50 - 150
Fluoranthene	0.0985	0.102		ug/L		103	50 - 150
Fluorene	0.0493	0.0511		ug/L		104	50 - 150
gamma-Chlordane	0.0246	0.0272	J	ug/L		110	50 - 150
Heptachlor	0.00985	0.0102		ug/L		104	50 - 150
Heptachlor epoxide (isomer B)	0.00985	0.0113		ug/L		115	50 - 150
Hexachlorobenzene	0.0493	0.0505		ug/L		103	50 - 150
Hexachlorocyclopentadiene	0.0493	0.0424	J	ug/L		86	50 - 150
Indeno[1,2,3-cd]pyrene	0.0493	0.0615		ug/L		125	50 - 150
Isophorone	0.0985	0.127		ug/L		129	50 - 150
Lindane	0.00985	0.00905	J	ug/L		92	50 - 150
Malathion	0.0985	0.116		ug/L		118	50 - 150
Methoxychlor	0.0493	0.0641		ug/L		130	50 - 150
Metolachlor	0.0493	0.0624		ug/L		127	50 - 150
Molinate	0.0985	0.108		ug/L		109	50 - 150
Naphthalene	0.0985	0.102		ug/L		104	50 - 150
Parathion	0.0985	0.106		ug/L		107	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MRL 380-186277/21-A**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Pendimethalin (Penoxaline)	0.0985	0.110		ug/L		111	50 - 150
Phenanthrene	0.0394	0.0387	J	ug/L		98	50 - 150
Propachlor	0.0493	0.0572		ug/L		116	50 - 150
Pyrene	0.0493	0.0499		ug/L		101	50 - 150
Simazine	0.0493	0.0480	J	ug/L		97	50 - 150
Terbacil	0.0985	0.123		ug/L		124	50 - 150
Terbutylazine	0.0985	0.103		ug/L		105	50 - 150
Thiobencarb	0.0985	0.115		ug/L		117	50 - 150
trans-Nonachlor	0.0246	<0.026		ug/L		99	50 - 150
Trifluralin	0.0985	0.116		ug/L		118	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	106		70 - 130

**Lab Sample ID: 380-181879-AG-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.98	1.85		ug/L		93	70 - 130
2,4'-DDD	<0.097		1.98	2.01		ug/L		102	70 - 130
2,4'-DDE	<0.097		1.98	1.92		ug/L		97	70 - 130
2,4'-DDT	<0.097		1.98	1.91		ug/L		96	70 - 130
2,4-Dinitrotoluene	<0.097		1.98	2.09		ug/L		106	70 - 130
2,6-Dinitrotoluene	<0.097		1.98	2.02		ug/L		102	70 - 130
2-Methylnaphthalene	<0.097		1.98	1.87		ug/L		94	70 - 130
4,4'-DDD	<0.097		1.98	2.03		ug/L		103	70 - 130
4,4'-DDE	<0.097		1.98	1.87		ug/L		94	70 - 130
4,4'-DDT	<0.097		1.98	1.74		ug/L		88	70 - 130
Acenaphthene	<0.097		1.98	1.98		ug/L		100	70 - 130
Acenaphthylene	<0.097		1.98	1.99		ug/L		101	70 - 130
Acetochlor	<0.097		1.98	2.18		ug/L		110	70 - 130
Alachlor	<0.048		1.98	2.15		ug/L		109	70 - 130
alpha-BHC	<0.097		1.98	1.98		ug/L		100	70 - 130
alpha-Chlordane	<0.048		1.98	2.10		ug/L		106	70 - 130
Anthracene	<0.019		1.98	1.66		ug/L		84	70 - 130
Atrazine	<0.048		1.98	2.13		ug/L		108	70 - 130
Benz(a)anthracene	<0.048		1.98	1.80		ug/L		91	70 - 130
Benzo[a]pyrene	<0.019		1.98	1.82		ug/L		92	70 - 130
Benzo[b]fluoranthene	<0.019		1.98	1.97		ug/L		99	70 - 130
Benzo[g,h,i]perylene	<0.048		1.98	1.86		ug/L		94	70 - 130
Benzo[k]fluoranthene	<0.019		1.98	1.85		ug/L		93	70 - 130
beta-BHC	<0.097		1.98	1.96		ug/L		99	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.98	1.68		ug/L		85	70 - 130
Bromacil	<0.097		1.98	1.81		ug/L		92	70 - 130
Butachlor	<0.048		1.98	2.15		ug/L		109	70 - 130

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: 380-181879-AG-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Butylbenzylphthalate	<0.48		1.98	2.31		ug/L		117	70 - 130
Chlorobenzilate	<0.097		1.98	2.18		ug/L		110	70 - 130
Chloroneb	<0.097		1.98	1.89		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.98	2.19		ug/L		111	70 - 130
Chlorpyrifos	<0.048		1.98	2.20		ug/L		111	70 - 130
Chrysene	<0.019		1.98	1.84		ug/L		93	70 - 130
delta-BHC	<0.097		1.98	1.96		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.98	1.87		ug/L		95	70 - 130
Dibenz(a,h)anthracene	<0.048		1.98	1.81		ug/L		92	70 - 130
Diclorvos (DDVP)	<0.048		1.98	1.99		ug/L		101	70 - 130
Dieldrin	<0.0097		1.98	2.01		ug/L		102	70 - 130
Diethylphthalate	<0.48		1.98	2.20		ug/L		111	70 - 130
Dimethylphthalate	<0.48		1.98	2.05		ug/L		104	70 - 130
Di-n-butyl phthalate	<0.97		3.95	4.38		ug/L		111	70 - 130
Di-n-octyl phthalate	<0.097		1.98	1.64		ug/L		83	70 - 130
Endosulfan I (Alpha)	<0.097		1.98	1.84		ug/L		93	70 - 130
Endosulfan II (Beta)	<0.097		1.98	1.92		ug/L		97	70 - 130
Endosulfan sulfate	<0.097		1.98	2.16		ug/L		109	70 - 130
Endrin	<0.0097		1.98	2.12		ug/L		107	70 - 130
Endrin aldehyde	<0.097		1.98	1.69		ug/L		85	60 - 130
EPTC	<0.097		1.98	2.10		ug/L		106	70 - 130
Fluoranthene	<0.097		1.98	2.14		ug/L		108	70 - 130
Fluorene	<0.048		1.98	2.00		ug/L		101	70 - 130
gamma-Chlordane	<0.048		1.98	2.12		ug/L		107	70 - 130
Heptachlor	<0.0097		1.98	2.04		ug/L		103	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.98	2.00		ug/L		101	70 - 130
Hexachlorobenzene	<0.048		1.98	2.05		ug/L		104	70 - 130
Hexachlorocyclopentadiene	<0.048		1.98	2.00		ug/L		101	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.98	1.96		ug/L		99	70 - 130
Isophorone	<0.097		1.98	2.09		ug/L		106	70 - 130
Lindane	<0.0097		1.98	1.93		ug/L		97	70 - 130
Malathion	<0.097		1.98	2.01		ug/L		102	70 - 130
Methoxychlor	<0.048		1.98	2.14		ug/L		108	70 - 130
Metolachlor	<0.048		1.98	1.99		ug/L		101	70 - 130
Molinate	<0.097		1.98	2.12		ug/L		107	70 - 130
Naphthalene	<0.097		1.98	1.90		ug/L		96	70 - 130
Parathion	<0.097		1.98	2.43		ug/L		123	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.98	2.28		ug/L		115	70 - 130
Phenanthrene	<0.039		1.98	1.95		ug/L		99	70 - 130
Propachlor	<0.048		1.98	2.18		ug/L		110	70 - 130
Pyrene	<0.048		1.98	2.10		ug/L		106	70 - 130
Simazine	<0.048		1.98	1.95		ug/L		98	70 - 130
Terbacil	<0.097		1.98	2.06		ug/L		104	70 - 130
Terbutylazine	<0.097		1.98	2.22		ug/L		112	70 - 130
Thiobencarb	<0.097		1.98	2.25		ug/L		114	70 - 130
trans-Nonachlor	<0.048		1.98	1.92		ug/L		97	70 - 130
Trifluralin	<0.097		1.98	2.20		ug/L		111	70 - 130

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: 380-181879-AG-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	110		70 - 130

**Lab Sample ID: 380-182102-O-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Sample Result	Sample Qualifier	DU		Unit	D	RPD	Limit
			Result	Qualifier				
1-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
2,4'-DDD	<0.098		<0.099		ug/L		NC	20
2,4'-DDE	<0.098		<0.099		ug/L		NC	20
2,4'-DDT	<0.098		<0.099		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
4,4'-DDD	<0.098		<0.099		ug/L		NC	20
4,4'-DDE	<0.098		<0.099		ug/L		NC	20
4,4'-DDT	<0.098		<0.099		ug/L		NC	20
Acenaphthene	<0.098		<0.099		ug/L		NC	20
Acenaphthylene	<0.098		<0.099		ug/L		NC	20
Acetochlor	<0.098		<0.099		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.099		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.099		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.099		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.099		ug/L		NC	20
Chloroneb	<0.098		<0.099		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.099		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.099		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0098		<0.0099		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: 380-182102-O-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 186293**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 186277**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.99		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.099		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.099		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.099		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.099		ug/L		NC	20
Endrin	<0.0098		<0.0099		ug/L		NC	20
Endrin aldehyde	<0.098		<0.099		ug/L		NC	20
EPTC	<0.098		<0.099		ug/L		NC	20
Fluoranthene	<0.098		<0.099		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0098		<0.0099		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0099		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.098		<0.099		ug/L		NC	20
Lindane	<0.0098		<0.0099		ug/L		NC	20
Malathion	<0.098		<0.099		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.099		ug/L		NC	20
Naphthalene	<0.098		<0.099		ug/L		NC	20
Parathion	<0.098		<0.099		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.099		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.098		<0.099		ug/L		NC	20
Terbutylazine	<0.098		<0.099		ug/L		NC	20
Thiobencarb	<0.098		<0.099		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.099		ug/L		NC	20

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	107		70 - 130

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 570-653985/1-A**  
**Matrix: Water**  
**Analysis Batch: 659204**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 653985**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>MB MB 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>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>67</i>		<i>33 - 139</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>84</i>		<i>33 - 126</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>50</i>		<i>12 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>74</i>		<i>36 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>31</i>		<i>10 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>78</i>		<i>47 - 131</i>	<i>11/10/25 14:12</i>	<i>11/20/25 11:03</i>	<i>1</i>

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

**Lab Sample ID: MB 570-653985/1-A**  
**Matrix: Water**  
**Analysis Batch: 659113**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 653985**

<i>Analyte</i>	<i>Result</i>	<i>MB MB Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Acenaphthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Acenaphthylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Benzo[g,h,i]perylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Chrysene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Fluorene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Indeno[1,2,3-cd]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Naphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Phenanthrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	<i>84</i>		<i>28 - 127</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>69</i>		<i>31 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>55</i>		<i>17 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>79</i>		<i>27 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>35</i>		<i>10 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>80</i>		<i>45 - 120</i>	<i>11/10/25 14:12</i>	<i>11/20/25 09:33</i>	<i>1</i>

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 570-653985/2-A**  
**Matrix: Water**  
**Analysis Batch: 659113**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 653985**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							Lower	Upper
1-Methylnaphthalene	20.0	15.0		ug/L		75	47 - 120	
2-Methylnaphthalene	20.0	15.1		ug/L		76	43 - 120	
Acenaphthene	20.0	17.2		ug/L		86	60 - 132	
Acenaphthylene	20.0	16.3		ug/L		82	54 - 126	
Anthracene	20.0	16.8		ug/L		84	43 - 120	
Benzo[a]anthracene	20.0	17.9		ug/L		90	42 - 133	
Benzo[a]pyrene	20.0	20.1		ug/L		100	32 - 148	
Benzo[b]fluoranthene	20.0	21.4		ug/L		107	42 - 140	
Benzo[g,h,i]perylene	20.0	17.0		ug/L		85	1 - 195	
Benzo[k]fluoranthene	20.0	20.2		ug/L		101	25 - 146	
Chrysene	20.0	19.1		ug/L		95	44 - 140	
Dibenz(a,h)anthracene	20.0	20.5		ug/L		103	1 - 200	
Fluoranthene	20.0	17.3		ug/L		87	43 - 121	
Fluorene	20.0	17.5		ug/L		88	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	20.6		ug/L		103	1 - 151	
Naphthalene	20.0	14.5		ug/L		72	36 - 120	
Phenanthrene	20.0	17.0		ug/L		85	65 - 120	
Pyrene	20.0	21.1		ug/L		106	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	85		28 - 127
2-Fluorobiphenyl (Surr)	72		31 - 120
2-Fluorophenol (Surr)	57		17 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120
Phenol-d6 (Surr)	38		10 - 120
p-Terphenyl-d14 (Surr)	88		45 - 120

**Lab Sample ID: LCSD 570-653985/3-A**  
**Matrix: Water**  
**Analysis Batch: 659113**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 653985**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Lower	Upper	RPD	Limit
1-Methylnaphthalene	20.0	16.1		ug/L		81	47 - 120	8	20	
2-Methylnaphthalene	20.0	16.3		ug/L		81	43 - 120	7	20	
Acenaphthene	20.0	19.3		ug/L		96	60 - 132	12	29	
Acenaphthylene	20.0	19.5		ug/L		97	54 - 126	18	45	
Anthracene	20.0	19.1		ug/L		96	43 - 120	13	40	
Benzo[a]anthracene	20.0	20.1		ug/L		100	42 - 133	11	32	
Benzo[a]pyrene	20.0	21.5		ug/L		108	32 - 148	7	43	
Benzo[b]fluoranthene	20.0	20.2		ug/L		101	42 - 140	6	43	
Benzo[g,h,i]perylene	20.0	21.0		ug/L		105	1 - 195	21	61	
Benzo[k]fluoranthene	20.0	20.2		ug/L		101	25 - 146	0	38	
Chrysene	20.0	19.3		ug/L		97	44 - 140	1	53	
Dibenz(a,h)anthracene	20.0	23.0		ug/L		115	1 - 200	11	75	
Fluoranthene	20.0	20.9		ug/L		104	43 - 121	18	40	
Fluorene	20.0	19.5		ug/L		98	70 - 120	11	23	
Indeno[1,2,3-cd]pyrene	20.0	23.1		ug/L		115	1 - 151	11	60	
Naphthalene	20.0	15.3		ug/L		76	36 - 120	5	39	

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# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCSD 570-653985/3-A**  
**Matrix: Water**  
**Analysis Batch: 659113**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 653985**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	19.4		ug/L		97	65 - 120	13	24
Pyrene	20.0	19.8		ug/L		99	70 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	100		28 - 127
2-Fluorobiphenyl (Surr)	91		31 - 120
2-Fluorophenol (Surr)	63		17 - 120
Nitrobenzene-d5 (Surr)	73		27 - 120
Phenol-d6 (Surr)	41		10 - 120
p-Terphenyl-d14 (Surr)	91		45 - 120

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

**Lab Sample ID: MB 570-656984/6**  
**Matrix: Water**  
**Analysis Batch: 656984**

**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			11/16/25 12:43	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134		11/16/25 12:43	1

**Lab Sample ID: LCS 570-656984/4**  
**Matrix: Water**  
**Analysis Batch: 656984**

**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	404		ug/L		101	78 - 120

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

**Lab Sample ID: LCSD 570-656984/5**  
**Matrix: Water**  
**Analysis Batch: 656984**

**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	419		ug/L		105	78 - 120	4	10

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	92		38 - 134

# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MRL 570-656984/3**  
**Matrix: Water**  
**Analysis Batch: 656984**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	12.1		ug/L		121	50 - 150
<b>Surrogate</b>		<b>MRL %Recovery</b>	<b>MRL Qualifier</b>				<b>Limits</b>
4-Bromofluorobenzene (Surr)		93					38 - 134

**Lab Sample ID: 570-254887-D-5 MS**  
**Matrix: Water**  
**Analysis Batch: 656984**

**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)	390		2000	2240		ug/L		93	68 - 122
<b>Surrogate</b>		<b>MS %Recovery</b>	<b>MS Qualifier</b>						<b>Limits</b>
4-Bromofluorobenzene (Surr)		93							38 - 134

**Lab Sample ID: 570-254887-D-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 656984**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	390		2000	2480		ug/L		105	68 - 122	10	18
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>						<b>Limits</b>		
4-Bromofluorobenzene (Surr)		94							38 - 134		

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

**Lab Sample ID: MB 570-653516/1-A**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		11/09/25 11:05	11/17/25 21:17	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		11/09/25 11:05	11/17/25 21:17	1
C8-C18	<25		25	ug/L		11/09/25 11:05	11/17/25 21:17	1
<b>Surrogate</b>		<b>MB %Recovery</b>	<b>MB Qualifier</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
n-Octacosane (Surr)		94				11/09/25 11:05	11/17/25 21:17	1

**Lab Sample ID: LCS 570-653516/2-A**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1540		ug/L		96	56 - 127

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# QC Sample Results

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 570-653516/2-A**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

	LCS %Recovery	LCS Qualifier	Limits
<i>n-Octacosane (Surr)</i>	115		60 - 130

**Lab Sample ID: LCSD 570-653516/3-A**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte									
C10-C28	1600	1390		ug/L		87	56 - 127	11	23
<i>n-Octacosane (Surr)</i>									
	LCSD %Recovery	LCSD Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	102		60 - 130						

**Lab Sample ID: MRL 570-653516/4-A**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Analyte							
C10-C28	0.0200	<0.020		mg/L		95	50 - 150
<i>n-Octacosane (Surr)</i>							
	MRL %Recovery	MRL Qualifier	Limits				
<i>n-Octacosane (Surr)</i>	88		60 - 130				

**Lab Sample ID: 380-181052-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Analyte									
C10-C28	<26		1660	1880		ug/L		113	70 - 130
<i>n-Octacosane (Surr)</i>									
	MS %Recovery	MS Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	132	S1+	60 - 130						

**Lab Sample ID: 380-181052-B-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 657598**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 653516**

	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte											
C10-C28	<26		1640	1850		ug/L		113	70 - 130	2	20
<i>n-Octacosane (Surr)</i>											
	MSD %Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	134	S1+	60 - 130								

# QC Association Summary

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

Job ID: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

## GC/MS Semi VOA

### Prep Batch: 186277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-186277/20-A	Method Blank	Total/NA	Water	525.2	
LCS 380-186277/22-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-186277/21-A	Lab Control Sample	Total/NA	Water	525.2	
380-181879-AG-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-182102-O-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 186293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	186277
MB 380-186277/20-A	Method Blank	Total/NA	Water	525.2	186277
LCS 380-186277/22-A	Lab Control Sample	Total/NA	Water	525.2	186277
MRL 380-186277/21-A	Lab Control Sample	Total/NA	Water	525.2	186277
380-181879-AG-1-A MS	Matrix Spike	Total/NA	Water	525.2	186277
380-182102-O-1-A DU	Duplicate	Total/NA	Water	525.2	186277

### Prep Batch: 653985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-653985/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-653985/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-653985/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

### Analysis Batch: 659005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	653985

### Analysis Batch: 659113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-653985/1-A	Method Blank	Total/NA	Water	625.1 SIM	653985
LCS 570-653985/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	653985
LCSD 570-653985/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	653985

### Analysis Batch: 659204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	653985
MB 570-653985/1-A	Method Blank	Total/NA	Water	625.1	653985

## GC VOA

### Analysis Batch: 656984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-181323-2	TB: HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
MB 570-656984/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-656984/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-656984/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-656984/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
570-254887-D-5 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
570-254887-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-181323-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

## GC Semi VOA

### Prep Batch: 653516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-653516/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-653516/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-653516/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-653516/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-181052-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-181052-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 657598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-181323-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	653516
MB 570-653516/1-A	Method Blank	Total/NA	Water	8015B	653516
LCS 570-653516/2-A	Lab Control Sample	Total/NA	Water	8015B	653516
LCSD 570-653516/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	653516
MRL 570-653516/4-A	Lab Control Sample	Total/NA	Water	8015B	653516
380-181052-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	653516
380-181052-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	653516



# Lab Chronicle

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

Job ID: 380-181323-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-1**

**Date Collected: 11/04/25 09:30**

**Matrix: Water**

**Date Received: 11/06/25 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			186277	IQ42	EA POM	11/13/25 12:55
Total/NA	Analysis	525.2		1	186293	UPAC	EA POM	11/14/25 10:07
Total/NA	Prep	625.1			653985	S4EA	EET CAL 4	11/10/25 14:12
Total/NA	Analysis	625.1		1	659204	PQS1	EET CAL 4	11/20/25 14:16
Total/NA	Prep	625.1			653985	S4EA	EET CAL 4	11/10/25 14:12
Total/NA	Analysis	625.1 SIM		1	659005	PQS1	EET CAL 4	11/20/25 10:06
Total/NA	Analysis	8015B GRO LL		1	656984	YD9V	EET CAL 4	11/16/25 21:34
Total/NA	Prep	3510C			653516	TVD6	EET CAL 4	11/09/25 11:05
Total/NA	Analysis	8015B		1	657598	NR	EET CAL 4	11/18/25 01:28

**Client Sample ID: TB: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-181323-2**

**Date Collected: 11/04/25 09:30**

**Matrix: Water**

**Date Received: 11/06/25 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	656984	YD9V	EET CAL 4	11/16/25 19:00

**Laboratory References:**

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

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

# Accreditation/Certification Summary

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

Job ID: 380-181323-1  
 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	11-17-26
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: 380-181323-1  
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

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# Method Summary

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

Job ID: 380-181323-1  
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: 380-181323-1  
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-181323-1	HALAWA SHAFT VIEWING POOL	Water	11/04/25 09:30	11/06/25 09:45	Hawaii
380-181323-2	TB: HALAWA SHAFT VIEWING POOL	Water	11/04/25 09:30	11/06/25 09:45	Hawaii

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# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler N/A	Lab PM. Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 570-485963.1
Client Contact: Shipping/Receiving		Phone: N/A	E-Mail: Maria.Lopez@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Eaton Analytical		Address: 941 Corporate Center Drive, Pomona State, Zip: CA, 91768-2642		Job #: 380-181323-1	Preservation Codes:
Due Date Requested: 11/18/2025		TAT Requested (days): N/A		Analysis Requested	
PO #: N/A	WO #: N/A	Sample Date 11/4/25	Sample Time 09:30 Hawaiian	Sample Type (C=comp, G=grab) G	Matrix (Weather, Soil, Composites, Other) Water
Project #: RED-HILL	SSOW#: N/A	Sample Date 11/4/25	Sample Time 09:30 Hawaiian	Sample Type (C=comp, G=grab) G	Matrix (Weather, Soil, Composites, Other) Water
Site: Honolulu BWS Sites		Sample Date 11/4/25	Sample Time 09:30 Hawaiian	Sample Type (C=comp, G=grab) G	Matrix (Weather, Soil, Composites, Other) Water
Sample Identification - Client ID (Lab ID)		Sample Date 11/4/25	Sample Time 09:30 Hawaiian	Sample Type (C=comp, G=grab) G	Matrix (Weather, Soil, Composites, Other) Water
HALAWA SHAFT VIEWING POOL (380-181323-1)		Sample Date 11/4/25	Sample Time 09:30 Hawaiian	Sample Type (C=comp, G=grab) G	Matrix (Weather, Soil, Composites, Other) Water
Special Instructions/Note:		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)	
Total Number of Containers		526.2, PREC/525.2, Prep(MOD) 525plus Plus TICs		X	
Other N/A		X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

**Possible Hazard Identification**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements

Method of Shipment

Received by \_\_\_\_\_ Date/Time: 11-12-25 17:27 Company: CP  
 Received by \_\_\_\_\_ Date/Time: 11/12/25 19:04 Company: Eurofins  
 Received by \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 600/15 5 = 5-5-110





**Eurofins Calscience**

2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Phone: 714-895-5484

**Chain of Custody Record**



Environment Testing

<b>Client Information (Sub Contract Lab)</b>		Sampler: N/A		Lab PM: Lopez, Maria		Carrier Tracking No(s): N/A		COC No: 670-485963-1			
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 Eaton Analytical		Accreditations Required (See note): State - Hawaii		Job #:		380-181323-1		Preservation Codes:			
Address: 941 Corporate Center Drive, City: Pomona, State, Zip: CA, 91768-2642, Phone: 626-386-1100(Tel), Email: N/A, Project Name: RED-HILL, Site: Honolulu BWS Sites		Due Date Requested: 11/18/2025 TAT Requested (days): N/A		<b>Analysis Requested</b>						Other: N/A	
Project #: 38001111		SSOW#: N/A		Field/Filtrated Sample (Yes or No)		Perform MS/MSD (Yes or No)		625.2_PREC/625.2_Prep(MOD) 626plus Plus TICs		Total Number of containers	
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=Comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, AA&amp;S)</b>		<b>Special Instructions/Note:</b>	
HALAWA SHAFT VIEWING POOL (380-181323-1)		11/4/25		09:30 Hawaiian		G		Water		2	
Preservation Code:											
<p>Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.</p>											
<b>Possible Hazard Identification</b>						<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>					
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: 11/12/25 17:22		Company: <i>RO</i>		Received by: <i>[Signature]</i>		Date/Time: 11-12-25 1727		Company: <i>JP</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							

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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-181323-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

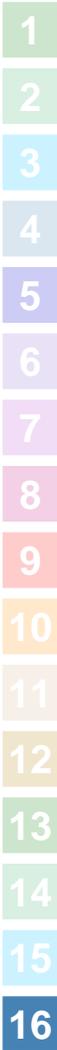
**Login Number: 181323**

**List Number: 1**

**Creator: Edrosa, Rey**

**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.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
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: 380-181323-1  
SDG Number: Weekly: Halawa Shaft Viewing Pool

**Login Number: 181323**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 11/07/25 12:48 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

