

# ANALYTICAL REPORT

## PREPARED FOR

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

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## JOB DESCRIPTION

RED-HILL  
Weekly: Halawa Shaft Viewing Pool  
RUSH Weekly Red Hill

## JOB NUMBER

380-183856-1

# 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](mailto:Maria.Lopez@et.eurofinsus.com)  
(626)386-1100

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# Definitions/Glossary

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

## 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: 380-183856-1

**Job ID: 380-183856-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-183856-1

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 11/20/2025 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

### GC/MS Semi VOA

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-660359. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625 Sim

Method 625.1\_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-660359. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. 625 Sim

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

### Gasoline Range Organics

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

### Diesel Range Organics

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

## Detection Summary

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-183856-1**

No Detections.

**Client Sample ID: TB Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-2**

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.

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# Client Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-1**

Date Collected: 11/18/25 09:35

Matrix: Drinking Water

Date Received: 11/20/25 10:10

PWSID Number: HI0000331

**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		11/24/25 07:54	11/24/25 17:07	1
2,4'-DDD	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
2,4'-DDE	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
2,4'-DDT	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
2,4-Dinitrotoluene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
2,6-Dinitrotoluene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
2-Methylnaphthalene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
4,4'-DDD	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
4,4'-DDE	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
4,4'-DDT	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Acenaphthene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Acenaphthylene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Acetochlor	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Alachlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
alpha-BHC	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
alpha-Chlordane	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Anthracene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 17:07	1
Atrazine	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Benz(a)anthracene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Benzo[a]pyrene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 17:07	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 17:07	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 17:07	1
beta-BHC	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		11/24/25 07:54	11/24/25 17:07	1
Bromacil	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Butachlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Butylbenzylphthalate	<0.48		0.48	ug/L		11/24/25 07:54	11/24/25 17:07	1
Chlorobenzilate	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Chloroneb	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Chlorothalonil (Draconil, Bravo)	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Chlorpyrifos	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Chrysene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 17:07	1
delta-BHC	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		11/24/25 07:54	11/24/25 17:07	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Dieldrin	<0.0096		0.0096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Diethylphthalate	<0.48		0.48	ug/L		11/24/25 07:54	11/24/25 17:07	1
Dimethylphthalate	<0.48		0.48	ug/L		11/24/25 07:54	11/24/25 17:07	1
Di-n-butyl phthalate	<0.96		0.96	ug/L		11/24/25 07:54	11/24/25 17:07	1
Di-n-octyl phthalate	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Endosulfan I (Alpha)	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Endosulfan II (Beta)	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Endosulfan sulfate	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Endrin	<0.0096		0.0096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Endrin aldehyde	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
EPTC	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Fluoranthene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1

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# Client Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-1**

Date Collected: 11/18/25 09:35

Matrix: Drinking Water

Date Received: 11/20/25 10:10

PWSID Number: HI0000331

**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		11/24/25 07:54	11/24/25 17:07	1
gamma-Chlordane	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Heptachlor	<0.0096		0.0096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Heptachlor epoxide (isomer B)	<0.0096		0.0096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Hexachlorobenzene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Isophorone	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Lindane	<0.0096		0.0096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Malathion	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Methoxychlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Metolachlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Molinate	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Naphthalene	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Parathion	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Pendimethalin (Penoxaline)	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Phenanthrene	<0.039		0.039	ug/L		11/24/25 07:54	11/24/25 17:07	1
Propachlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Pyrene	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Simazine	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Terbacil	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Terbutylazine	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Thiobencarb	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		11/24/25 07:54	11/24/25 17:07	1
trans-Nonachlor	<0.048		0.048	ug/L		11/24/25 07:54	11/24/25 17:07	1
Trifluralin	<0.096		0.096	ug/L		11/24/25 07:54	11/24/25 17:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	11/24/25 07:54	11/24/25 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	11/24/25 07:54	11/24/25 17:07	1
Perylene-d12	88		70 - 130	11/24/25 07:54	11/24/25 17:07	1
Triphenylphosphate	93		70 - 130	11/24/25 07:54	11/24/25 17:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
2-Methylnaphthalene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Acenaphthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Acenaphthylene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Benzo[a]anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Benzo[a]pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Chrysene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-1**

Date Collected: 11/18/25 09:35

Matrix: Drinking Water

Date Received: 11/20/25 10:10

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Naphthalene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Phenanthrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1
Pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 06:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		28 - 127	11/24/25 09:00	12/07/25 06:09	1
2-Fluorobiphenyl (Surr)	86		31 - 120	11/24/25 09:00	12/07/25 06:09	1
2-Fluorophenol (Surr)	54		17 - 120	11/24/25 09:00	12/07/25 06:09	1
Nitrobenzene-d5 (Surr)	85		27 - 120	11/24/25 09:00	12/07/25 06:09	1
Phenol-d6 (Surr)	33		10 - 120	11/24/25 09:00	12/07/25 06:09	1
p-Terphenyl-d14 (Surr)	87		45 - 120	11/24/25 09:00	12/07/25 06:09	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
Toluene	3.2	T J N	ug/L		1.80	108-88-3	11/24/25 09:00	12/10/25 00:39	1
3-Penten-2-one, 4-methyl-	5.6	T J N	ug/L		1.90	141-79-7	11/24/25 09:00	12/10/25 00:39	1
Cyclic octaatomic sulfur	3.0	T J N	ug/L		9.93	10544-50-0	11/24/25 09:00	12/10/25 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	61		33 - 139	11/24/25 09:00	12/10/25 00:39	1
2-Fluorobiphenyl (Surr)	65		33 - 126	11/24/25 09:00	12/10/25 00:39	1
2-Fluorophenol (Surr)	38		12 - 120	11/24/25 09:00	12/10/25 00:39	1
Nitrobenzene-d5 (Surr)	68		36 - 120	11/24/25 09:00	12/10/25 00:39	1
Phenol-d6 (Surr)	22		10 - 120	11/24/25 09:00	12/10/25 00:39	1
p-Terphenyl-d14 (Surr)	64		47 - 131	11/24/25 09:00	12/10/25 00:39	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			11/26/25 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		38 - 134		11/26/25 16:35	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)	<27		27	ug/L		11/25/25 10:08	11/29/25 11:09	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		11/25/25 10:08	11/29/25 11:09	1
C8-C18	<27		27	ug/L		11/25/25 10:08	11/29/25 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	93		60 - 130	11/25/25 10:08	11/29/25 11:09	1

**Client Sample ID: TB Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-2**

Date Collected: 11/18/25 09:35

Matrix: Water

Date Received: 11/20/25 10:10

**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			11/27/25 00:29	1

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# Client Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: TB Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-2**

Date Collected: 11/18/25 09:35

Matrix: Water

Date Received: 11/20/25 10:10

<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)	98		38 - 134		11/27/25 00:29	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: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-1**

**PWSID Number: HI0000331**

## 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	<0.20		ug/L	0.2	0.20	625.1 SIM	Total/NA

# Surrogate Summary

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-183856-1	Halawa Shaft Viewing Pool	98	88	93

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-183957-B-1-A MS	Matrix Spike	99	96	98
380-183996-C-1-A DU	Duplicate	97	90	92
LCS 380-188292/22-A	Lab Control Sample	99	98	102
MB 380-188292/20-A	Method Blank	98	89	93
MRL 380-188292/21-A	Lab Control Sample	99	89	93

**Surrogate Legend**

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

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

Matrix: Drinking 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)
380-183856-1	Halawa Shaft Viewing Pool	61	65	38	68	22	64

**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 - 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)
MB 570-660359/1-A	Method Blank	62	70	44	75	26	63

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)

# Surrogate Summary

Client: City & County of Honolulu  
 Project/Site: RED-HILL  
 PHL6 = Phenol-d6 (Surr)  
 TPHd14 = p-Terphenyl-d14 (Surr)

Job ID: 380-183856-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

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

Matrix: Drinking 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)
380-183856-1	Halawa Shaft Viewing Pool	90	86	54	85	33	87

**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)
LCS 570-660359/2-A	Lab Control Sample	93	94	69	77	44	91
LCSD 570-660359/3-A	Lab Control Sample Dup	94	98	69	81	43	92
MB 570-660359/1-A	Method Blank	91	91	59	91	36	88

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-183856-1	Halawa Shaft Viewing Pool	91

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-183856-2	TB Halawa Shaft Viewing Pool	98
570-255567-E-14 MS	Matrix Spike	90
570-255567-E-14 MSD	Matrix Spike Duplicate	92
LCS 570-662064/4	Lab Control Sample	90
LCSD 570-662064/5	Lab Control Sample Dup	92

# Surrogate Summary

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
MB 570-662064/6	Method Blank	86
MRL 570-662064/3	Lab Control Sample	104

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-183856-1	Halawa Shaft Viewing Pool	93

#### Surrogate Legend

OTCSN = n-Octacosane (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)
380-184133-C-1-B MS	Matrix Spike	101
380-184133-D-1-B MSD	Matrix Spike Duplicate	92
LCS 570-661442/2-A	Lab Control Sample	104
LCSD 570-661442/3-A	Lab Control Sample Dup	109
MB 570-661442/1-A	Method Blank	91
MRL 570-661442/4-A	Lab Control Sample	111

#### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 380-188292/20-A**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2,4'-DDD	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2,4'-DDE	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2,4'-DDT	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
2-Methylnaphthalene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
4,4'-DDD	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
4,4'-DDE	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
4,4'-DDT	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Acenaphthene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Acenaphthylene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Acetochlor	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Alachlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
alpha-BHC	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
alpha-Chlordane	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Anthracene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 14:46	1
Atrazine	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Benz(a)anthracene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Benzo[a]pyrene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 14:46	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 14:46	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 14:46	1
beta-BHC	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		11/24/25 07:54	11/24/25 14:46	1
Bromacil	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Butachlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Butylbenzylphthalate	<0.49		0.49	ug/L		11/24/25 07:54	11/24/25 14:46	1
Chlorobenzilate	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Chloroneb	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Chlorpyrifos	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Chrysene	<0.019		0.019	ug/L		11/24/25 07:54	11/24/25 14:46	1
delta-BHC	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		11/24/25 07:54	11/24/25 14:46	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Dieldrin	<0.0097		0.0097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Diethylphthalate	<0.49		0.49	ug/L		11/24/25 07:54	11/24/25 14:46	1
Dimethylphthalate	<0.49		0.49	ug/L		11/24/25 07:54	11/24/25 14:46	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		11/24/25 07:54	11/24/25 14:46	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Endosulfan sulfate	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Endrin	<0.0097		0.0097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Endrin aldehyde	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
EPTC	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 380-188292/20-A**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Fluorene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
gamma-Chlordane	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Heptachlor	<0.0097		0.0097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Hexachlorobenzene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Isophorone	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Lindane	<0.0097		0.0097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Malathion	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Methoxychlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Metolachlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Molinate	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Naphthalene	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Parathion	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Phenanthrene	<0.039		0.039	ug/L		11/24/25 07:54	11/24/25 14:46	1
Propachlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Pyrene	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Simazine	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Terbacil	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Terbutylazine	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Thiobencarb	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		11/24/25 07:54	11/24/25 14:46	1
trans-Nonachlor	<0.049		0.049	ug/L		11/24/25 07:54	11/24/25 14:46	1
Trifluralin	<0.097		0.097	ug/L		11/24/25 07:54	11/24/25 14:46	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Plumbane, diethylidimethyl-	0.500	T J N	ug/L		3.22	1762-27-2	11/24/25 07:54	11/24/25 14:46	1
Unknown	0.683	T J	ug/L		3.84	N/A	11/24/25 07:54	11/24/25 14:46	1
9-Octadecenamamide, (Z)-	0.528	T J N	ug/L		7.80	301-02-0	11/24/25 07:54	11/24/25 14:46	1
Unknown	0.675	T J	ug/L		14.77	N/A	11/24/25 07:54	11/24/25 14:46	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	98		70 - 130	11/24/25 07:54	11/24/25 14:46	1
Perylene-d12	89		70 - 130	11/24/25 07:54	11/24/25 14:46	1
Triphenylphosphate	93		70 - 130	11/24/25 07:54	11/24/25 14:46	1

**Lab Sample ID: LCS 380-188292/22-A**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.95	1.74		ug/L		89	70 - 130
2,4'-DDD	1.95	1.91		ug/L		98	70 - 130
2,4'-DDE	1.95	1.91		ug/L		98	70 - 130
2,4'-DDT	1.95	1.93		ug/L		99	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-183856-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-188292/22-A

Matrix: Water

Analysis Batch: 188341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 188292

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
2,4-Dinitrotoluene	1.95	2.04		ug/L		105	70 - 130
2,6-Dinitrotoluene	1.95	2.02		ug/L		104	70 - 130
2-Methylnaphthalene	1.95	1.76		ug/L		90	70 - 130
4,4'-DDD	1.95	1.92		ug/L		98	70 - 130
4,4'-DDE	1.95	1.88		ug/L		96	70 - 130
4,4'-DDT	1.95	1.75		ug/L		90	70 - 130
Acenaphthene	1.95	1.87		ug/L		96	70 - 130
Acenaphthylene	1.95	1.92		ug/L		98	70 - 130
Acetochlor	1.95	2.03		ug/L		104	70 - 130
Alachlor	1.95	2.03		ug/L		104	70 - 130
alpha-BHC	1.95	1.87		ug/L		96	70 - 130
alpha-Chlordane	1.95	1.99		ug/L		102	70 - 130
Anthracene	1.95	1.73		ug/L		89	70 - 130
Atrazine	1.95	1.98		ug/L		102	70 - 130
Benz(a)anthracene	1.95	1.66		ug/L		85	70 - 130
Benzo[a]pyrene	1.95	1.85		ug/L		95	70 - 130
Benzo[b]fluoranthene	1.95	1.89		ug/L		97	70 - 130
Benzo[g,h,i]perylene	1.95	1.87		ug/L		96	70 - 130
Benzo[k]fluoranthene	1.95	1.87		ug/L		96	70 - 130
beta-BHC	1.95	1.84		ug/L		94	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.98		ug/L		102	70 - 130
Bromacil	1.95	1.90		ug/L		97	70 - 130
Butachlor	1.95	1.96		ug/L		101	70 - 130
Butylbenzylphthalate	1.95	2.06		ug/L		106	70 - 130
Chlorobenzilate	1.95	1.83		ug/L		94	70 - 130
Chloroneb	1.95	1.80		ug/L		92	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.15		ug/L		110	70 - 130
Chlorpyrifos	1.95	2.05		ug/L		105	70 - 130
Chrysene	1.95	1.77		ug/L		91	70 - 130
delta-BHC	1.95	1.83		ug/L		94	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.01		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.95	1.87		ug/L		96	70 - 130
Diclorvos (DDVP)	1.95	1.92		ug/L		98	70 - 130
Dieldrin	1.95	1.89		ug/L		97	70 - 130
Diethylphthalate	1.95	2.10		ug/L		108	70 - 130
Dimethylphthalate	1.95	2.00		ug/L		103	70 - 130
Di-n-butyl phthalate	3.89	4.02		ug/L		103	70 - 130
Di-n-octyl phthalate	1.95	2.02		ug/L		104	70 - 130
Endosulfan I (Alpha)	1.95	1.82		ug/L		93	70 - 130
Endosulfan II (Beta)	1.95	1.80		ug/L		92	70 - 130
Endosulfan sulfate	1.95	1.98		ug/L		102	70 - 130
Endrin	1.95	1.96		ug/L		100	70 - 130
Endrin aldehyde	1.95	1.66		ug/L		85	60 - 130
EPTC	1.95	1.98		ug/L		102	70 - 130
Fluoranthene	1.95	1.95		ug/L		100	70 - 130
Fluorene	1.95	1.86		ug/L		96	70 - 130
gamma-Chlordane	1.95	2.04		ug/L		105	70 - 130
Heptachlor	1.95	1.96		ug/L		100	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.84		ug/L		95	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-188292/22-A

Matrix: Water

Analysis Batch: 188341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 188292

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hexachlorobenzene	1.95	1.90		ug/L		98	70 - 130
Hexachlorocyclopentadiene	1.95	1.82		ug/L		94	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.93		ug/L		99	70 - 130
Isophorone	1.95	2.02		ug/L		104	70 - 130
Lindane	1.95	1.82		ug/L		93	70 - 130
Malathion	1.95	1.85		ug/L		95	70 - 130
Methoxychlor	1.95	1.95		ug/L		100	70 - 130
Metolachlor	1.95	1.86		ug/L		96	70 - 130
Molinate	1.95	2.01		ug/L		103	70 - 130
Naphthalene	1.95	1.79		ug/L		92	70 - 130
Parathion	1.95	2.20		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	1.95	2.00		ug/L		103	70 - 130
Phenanthrene	1.95	1.85		ug/L		95	70 - 130
Propachlor	1.95	2.02		ug/L		104	70 - 130
Pyrene	1.95	1.92		ug/L		99	70 - 130
Simazine	1.95	1.88		ug/L		97	70 - 130
Terbacil	1.95	2.09		ug/L		107	70 - 130
Terbutylazine	1.95	2.03		ug/L		104	70 - 130
Thiobencarb	1.95	2.10		ug/L		108	70 - 130
trans-Nonachlor	1.95	1.86		ug/L		95	70 - 130
Trifluralin	1.95	1.94		ug/L		99	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: MRL 380-188292/21-A

Matrix: Water

Analysis Batch: 188341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 188292

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	0.0968	0.114		ug/L		117	50 - 150
2,4'-DDD	0.0968	0.0813	J	ug/L		84	50 - 150
2,4'-DDE	0.0968	0.0956	J	ug/L		99	50 - 150
2,4'-DDT	0.0968	0.0903	J	ug/L		93	50 - 150
2,4-Dinitrotoluene	0.0968	0.102		ug/L		106	50 - 150
2,6-Dinitrotoluene	0.0968	0.122		ug/L		126	50 - 150
2-Methylnaphthalene	0.0968	0.105		ug/L		109	50 - 150
4,4'-DDD	0.0968	0.0896	J	ug/L		93	50 - 150
4,4'-DDE	0.0968	0.0944	J	ug/L		98	50 - 150
4,4'-DDT	0.0968	0.101		ug/L		104	50 - 150
Acenaphthene	0.0968	0.0902	J	ug/L		93	50 - 150
Acenaphthylene	0.0968	0.0987		ug/L		102	50 - 150
Acetochlor	0.0968	0.111		ug/L		115	50 - 150
Alachlor	0.0484	0.0477	J	ug/L		99	50 - 150
alpha-BHC	0.0968	0.101		ug/L		104	50 - 150
alpha-Chlordane	0.0242	<0.028		ug/L		98	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-188292/21-A

Matrix: Water

Analysis Batch: 188341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 188292

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Anthracene	0.0194	0.0226		ug/L		117	50 - 150
Atrazine	0.0484	<0.046		ug/L		92	50 - 150
Benz(a)anthracene	0.0484	0.0468	J	ug/L		97	50 - 150
Benzo[a]pyrene	0.0194	0.0231		ug/L		119	50 - 150
Benzo[b]fluoranthene	0.0194	0.0214		ug/L		110	50 - 150
Benzo[g,h,i]perylene	0.0484	0.0524		ug/L		108	50 - 150
Benzo[k]fluoranthene	0.0194	0.0205		ug/L		106	50 - 150
beta-BHC	0.0968	0.105		ug/L		109	50 - 150
Bis(2-ethylhexyl) phthalate	0.581	0.679		ug/L		117	50 - 150
Bromacil	0.0968	0.101		ug/L		104	50 - 150
Butachlor	0.0484	0.0593		ug/L		122	50 - 150
Butylbenzylphthalate	0.484	0.526		ug/L		109	50 - 150
Chlorobenzilate	0.0968	0.0930	J	ug/L		96	50 - 150
Chloroneb	0.0968	0.0985		ug/L		102	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0968	0.0906	J	ug/L		94	50 - 150
Chlorpyrifos	0.0484	0.0475	J	ug/L		98	50 - 150
Chrysene	0.0194	0.0202		ug/L		104	50 - 150
delta-BHC	0.0968	0.101		ug/L		104	50 - 150
Di(2-ethylhexyl)adipate	0.581	0.660		ug/L		114	50 - 150
Dibenz(a,h)anthracene	0.0484	0.0490		ug/L		101	50 - 150
Diclorvos (DDVP)	0.0484	0.0616		ug/L		127	50 - 150
Dieldrin	0.00968	0.0125		ug/L		129	50 - 150
Diethylphthalate	0.484	0.557		ug/L		115	50 - 150
Dimethylphthalate	0.484	0.524		ug/L		108	50 - 150
Di-n-butyl phthalate	0.484	0.561	J	ug/L		116	49 - 243
Di-n-octyl phthalate	0.0968	0.120		ug/L		124	50 - 150
Endosulfan I (Alpha)	0.0968	0.0864	J	ug/L		89	50 - 150
Endosulfan II (Beta)	0.0968	0.107		ug/L		111	50 - 150
Endosulfan sulfate	0.0968	0.0924	J	ug/L		95	50 - 150
Endrin	0.00968	0.0124		ug/L		128	50 - 150
Endrin aldehyde	0.0968	0.101		ug/L		104	50 - 150
EPTC	0.0968	0.102		ug/L		106	50 - 150
Fluoranthene	0.0968	0.0936	J	ug/L		97	50 - 150
Fluorene	0.0484	0.0534		ug/L		110	50 - 150
gamma-Chlordane	0.0242	0.0234	J	ug/L		97	50 - 150
Heptachlor	0.00968	0.0109		ug/L		112	50 - 150
Heptachlor epoxide (isomer B)	0.00968	0.00944	J	ug/L		98	50 - 150
Hexachlorobenzene	0.0484	0.0521		ug/L		108	50 - 150
Hexachlorocyclopentadiene	0.0484	0.0423	J	ug/L		87	50 - 150
Indeno[1,2,3-cd]pyrene	0.0484	0.0500		ug/L		103	50 - 150
Isophorone	0.0968	0.116		ug/L		119	50 - 150
Lindane	0.00968	0.0107		ug/L		111	50 - 150
Malathion	0.0968	0.0952	J	ug/L		98	50 - 150
Methoxychlor	0.0484	0.0520		ug/L		107	50 - 150
Metolachlor	0.0484	0.0590		ug/L		122	50 - 150
Molinate	0.0968	0.109		ug/L		113	50 - 150
Naphthalene	0.0968	0.119		ug/L		123	50 - 150
Parathion	0.0968	0.0946	J	ug/L		98	50 - 150
Pendimethalin (Penoxaline)	0.0968	0.0973		ug/L		101	50 - 150

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# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MRL 380-188292/21-A**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Phenanthrene	0.0387	0.0381	J	ug/L		98	50 - 150
Propachlor	0.0484	0.0565		ug/L		117	50 - 150
Pyrene	0.0484	0.0460	J	ug/L		95	50 - 150
Simazine	0.0484	0.0392	J	ug/L		81	50 - 150
Terbacil	0.0968	0.0996		ug/L		103	50 - 150
Terbutylazine	0.0968	0.0952	J	ug/L		98	50 - 150
Thiobencarb	0.0968	0.102		ug/L		105	50 - 150
trans-Nonachlor	0.0242	<0.025		ug/L		93	50 - 150
Trifluralin	0.0968	0.108		ug/L		112	50 - 150

Surrogate	MRL	MRL	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	89		70 - 130
Triphenylphosphate	93		70 - 130

**Lab Sample ID: 380-183957-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
1-Methylnaphthalene	<0.097		1.99	1.88		ug/L		94	70 - 130
2,4'-DDD	<0.097		1.99	2.01		ug/L		101	70 - 130
2,4'-DDE	<0.097		1.99	2.00		ug/L		101	70 - 130
2,4'-DDT	<0.097		1.99	2.00		ug/L		100	70 - 130
2,4-Dinitrotoluene	<0.097		1.99	2.09		ug/L		105	70 - 130
2,6-Dinitrotoluene	<0.097		1.99	2.08		ug/L		105	70 - 130
2-Methylnaphthalene	<0.097		1.99	1.89		ug/L		95	70 - 130
4,4'-DDD	<0.097		1.99	2.03		ug/L		102	70 - 130
4,4'-DDE	<0.097		1.99	1.96		ug/L		98	70 - 130
4,4'-DDT	<0.097		1.99	1.77		ug/L		89	70 - 130
Acenaphthene	<0.097		1.99	2.01		ug/L		101	70 - 130
Acenaphthylene	<0.097		1.99	2.01		ug/L		101	70 - 130
Acetochlor	<0.097		1.99	2.14		ug/L		108	70 - 130
Alachlor	<0.048		1.99	2.10		ug/L		106	70 - 130
alpha-BHC	<0.097		1.99	1.95		ug/L		98	70 - 130
alpha-Chlordane	<0.048		1.99	2.11		ug/L		106	70 - 130
Anthracene	<0.019	F1	1.99	1.03	F1	ug/L		52	70 - 130
Atrazine	<0.048		1.99	2.08		ug/L		105	70 - 130
Benz(a)anthracene	<0.048		1.99	1.60		ug/L		81	70 - 130
Benzo[a]pyrene	<0.019		1.99	1.56		ug/L		79	70 - 130
Benzo[b]fluoranthene	<0.019		1.99	1.98		ug/L		99	70 - 130
Benzo[g,h,i]perylene	<0.048		1.99	1.98		ug/L		99	70 - 130
Benzo[k]fluoranthene	<0.019		1.99	1.88		ug/L		95	70 - 130
beta-BHC	<0.097		1.99	1.92		ug/L		97	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.99	1.86		ug/L		94	70 - 130
Bromacil	<0.097		1.99	1.97		ug/L		99	70 - 130
Butachlor	<0.048		1.99	2.03		ug/L		102	70 - 130
Butylbenzylphthalate	<0.48		1.99	2.14		ug/L		108	70 - 130

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: 380-183957-B-1-A MS**

**Client Sample ID: Matrix Spike**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 188341**

**Prep Batch: 188292**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorobenzilate	<0.097		1.99	1.85		ug/L		93	70 - 130
Chloroneb	<0.097		1.99	1.88		ug/L		94	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.99	2.20		ug/L		111	70 - 130
Chlorpyrifos	<0.048		1.99	2.16		ug/L		109	70 - 130
Chrysene	<0.019		1.99	1.94		ug/L		98	70 - 130
delta-BHC	<0.097		1.99	1.91		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.99	1.94		ug/L		98	70 - 130
Dibenz(a,h)anthracene	<0.048		1.99	1.87		ug/L		94	70 - 130
Diclorvos (DDVP)	<0.048		1.99	1.99		ug/L		100	70 - 130
Dieldrin	<0.0097		1.99	2.02		ug/L		102	70 - 130
Diethylphthalate	<0.48		1.99	2.17		ug/L		109	70 - 130
Dimethylphthalate	<0.48		1.99	2.09		ug/L		105	70 - 130
Di-n-butyl phthalate	<0.97		3.97	4.31		ug/L		100	70 - 130
Di-n-octyl phthalate	<0.097		1.99	1.88		ug/L		95	70 - 130
Endosulfan I (Alpha)	<0.097		1.99	1.89		ug/L		95	70 - 130
Endosulfan II (Beta)	<0.097		1.99	1.92		ug/L		97	70 - 130
Endosulfan sulfate	<0.097		1.99	2.09		ug/L		105	70 - 130
Endrin	<0.0097		1.99	2.04		ug/L		103	70 - 130
Endrin aldehyde	<0.097		1.99	1.54		ug/L		78	60 - 130
EPTC	<0.097		1.99	2.11		ug/L		106	70 - 130
Fluoranthene	<0.097		1.99	2.07		ug/L		104	70 - 130
Fluorene	<0.048		1.99	1.96		ug/L		99	70 - 130
gamma-Chlordane	<0.048		1.99	2.14		ug/L		108	70 - 130
Heptachlor	<0.0097		1.99	2.01		ug/L		101	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.99	1.92		ug/L		97	70 - 130
Hexachlorobenzene	<0.048		1.99	2.04		ug/L		103	70 - 130
Hexachlorocyclopentadiene	<0.048		1.99	1.92		ug/L		97	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.99	1.95		ug/L		98	70 - 130
Isophorone	<0.097		1.99	2.13		ug/L		107	70 - 130
Lindane	<0.0097		1.99	1.91		ug/L		96	70 - 130
Malathion	<0.097		1.99	1.90		ug/L		96	70 - 130
Methoxychlor	<0.048		1.99	2.00		ug/L		101	70 - 130
Metolachlor	<0.048		1.99	1.96		ug/L		99	70 - 130
Molinate	<0.097		1.99	2.07		ug/L		104	70 - 130
Naphthalene	<0.097		1.99	1.92		ug/L		97	70 - 130
Parathion	<0.097		1.99	2.29		ug/L		115	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.99	2.08		ug/L		105	70 - 130
Phenanthrene	<0.039		1.99	1.96		ug/L		99	70 - 130
Propachlor	<0.048		1.99	2.14		ug/L		108	70 - 130
Pyrene	<0.048		1.99	2.03		ug/L		102	70 - 130
Simazine	<0.048		1.99	1.96		ug/L		99	70 - 130
Terbacil	<0.097		1.99	2.08		ug/L		105	70 - 130
Terbutylazine	<0.097		1.99	2.14		ug/L		108	70 - 130
Thiobencarb	<0.097		1.99	2.19		ug/L		110	70 - 130
trans-Nonachlor	<0.048		1.99	1.96		ug/L		99	70 - 130
Trifluralin	<0.097		1.99	2.08		ug/L		105	70 - 130

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: 380-183957-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	98		70 - 130

**Lab Sample ID: 380-183996-C-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 188341**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 188292**

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

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-183996-C-1-A DU

Matrix: Water

Analysis Batch: 188341

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 188292

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.097		ug/L		NC	20
Lindane	<0.0097		<0.0097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.097		ug/L		NC	20
Terbutylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	92		70 - 130

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MB 570-660359/1-A**  
**Matrix: Water**  
**Analysis Batch: 667558**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 660359**

<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>11/24/25 09:00</i>	<i>12/10/25 00:15</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>	62		33 - 139	11/24/25 09:00	12/10/25 00:15	1
<i>2-Fluorobiphenyl (Surr)</i>	70		33 - 126	11/24/25 09:00	12/10/25 00:15	1
<i>2-Fluorophenol (Surr)</i>	44		12 - 120	11/24/25 09:00	12/10/25 00:15	1
<i>Nitrobenzene-d5 (Surr)</i>	75		36 - 120	11/24/25 09:00	12/10/25 00:15	1
<i>Phenol-d6 (Surr)</i>	26		10 - 120	11/24/25 09:00	12/10/25 00:15	1
<i>p-Terphenyl-d14 (Surr)</i>	63		47 - 131	11/24/25 09:00	12/10/25 00:15	1

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

**Lab Sample ID: MB 570-660359/1-A**  
**Matrix: Water**  
**Analysis Batch: 666053**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 660359**

<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		11/24/25 09:00	12/07/25 05:01	1
2-Methylnaphthalene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Acenaphthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Acenaphthylene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Benzo[a]anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Benzo[a]pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Chrysene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Fluoranthene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Fluorene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Naphthalene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Phenanthrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	1
Pyrene	<0.20		0.20	ug/L		11/24/25 09:00	12/07/25 05:01	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>	91		28 - 127	11/24/25 09:00	12/07/25 05:01	1
<i>2-Fluorobiphenyl (Surr)</i>	91		31 - 120	11/24/25 09:00	12/07/25 05:01	1
<i>2-Fluorophenol (Surr)</i>	59		17 - 120	11/24/25 09:00	12/07/25 05:01	1
<i>Nitrobenzene-d5 (Surr)</i>	91		27 - 120	11/24/25 09:00	12/07/25 05:01	1
<i>Phenol-d6 (Surr)</i>	36		10 - 120	11/24/25 09:00	12/07/25 05:01	1
<i>p-Terphenyl-d14 (Surr)</i>	88		45 - 120	11/24/25 09:00	12/07/25 05:01	1

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 570-660359/2-A**

**Matrix: Water**

**Analysis Batch: 666053**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 660359**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
1-Methylnaphthalene	20.0	15.6		ug/L		78	47 - 120	
2-Methylnaphthalene	20.0	15.3		ug/L		76	43 - 120	
Acenaphthene	20.0	18.7		ug/L		93	60 - 132	
Acenaphthylene	20.0	19.4		ug/L		97	54 - 126	
Anthracene	20.0	19.4		ug/L		97	43 - 120	
Benzo[a]anthracene	20.0	19.8		ug/L		99	42 - 133	
Benzo[a]pyrene	20.0	20.5		ug/L		103	32 - 148	
Benzo[b]fluoranthene	20.0	20.9		ug/L		104	42 - 140	
Benzo[g,h,i]perylene	20.0	19.5		ug/L		98	1 - 195	
Benzo[k]fluoranthene	20.0	19.4		ug/L		97	25 - 146	
Chrysene	20.0	19.1		ug/L		96	44 - 140	
Dibenz(a,h)anthracene	20.0	20.8		ug/L		104	1 - 200	
Fluoranthene	20.0	19.8		ug/L		99	43 - 121	
Fluorene	20.0	18.6		ug/L		93	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	19.9		ug/L		100	1 - 151	
Naphthalene	20.0	15.5		ug/L		78	36 - 120	
Phenanthrene	20.0	19.7		ug/L		98	65 - 120	
Pyrene	20.0	20.5		ug/L		102	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	93		28 - 127
2-Fluorobiphenyl (Surr)	94		31 - 120
2-Fluorophenol (Surr)	69		17 - 120
Nitrobenzene-d5 (Surr)	77		27 - 120
Phenol-d6 (Surr)	44		10 - 120
p-Terphenyl-d14 (Surr)	91		45 - 120

**Lab Sample ID: LCSD 570-660359/3-A**

**Matrix: Water**

**Analysis Batch: 666053**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 660359**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
									RPD	Limit
1-Methylnaphthalene	20.0	16.3		ug/L		82	47 - 120	4	20	
2-Methylnaphthalene	20.0	16.3		ug/L		82	43 - 120	7	20	
Acenaphthene	20.0	19.7		ug/L		98	60 - 132	5	29	
Acenaphthylene	20.0	20.5		ug/L		103	54 - 126	6	45	
Anthracene	20.0	19.7		ug/L		98	43 - 120	2	40	
Benzo[a]anthracene	20.0	19.8		ug/L		99	42 - 133	0	32	
Benzo[a]pyrene	20.0	20.4		ug/L		102	32 - 148	1	43	
Benzo[b]fluoranthene	20.0	20.3		ug/L		101	42 - 140	3	43	
Benzo[g,h,i]perylene	20.0	19.8		ug/L		99	1 - 195	1	61	
Benzo[k]fluoranthene	20.0	19.9		ug/L		99	25 - 146	2	38	
Chrysene	20.0	18.9		ug/L		94	44 - 140	1	53	
Dibenz(a,h)anthracene	20.0	20.9		ug/L		105	1 - 200	1	75	
Fluoranthene	20.0	20.2		ug/L		101	43 - 121	2	40	
Fluorene	20.0	19.4		ug/L		97	70 - 120	4	23	
Indeno[1,2,3-cd]pyrene	20.0	20.4		ug/L		102	1 - 151	2	60	
Naphthalene	20.0	16.1		ug/L		81	36 - 120	4	39	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCSD 570-660359/3-A**  
**Matrix: Water**  
**Analysis Batch: 666053**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 660359**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	19.8		ug/L		99	65 - 120	0	24
Pyrene	20.0	20.6		ug/L		103	70 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	94		28 - 127
2-Fluorobiphenyl (Surr)	98		31 - 120
2-Fluorophenol (Surr)	69		17 - 120
Nitrobenzene-d5 (Surr)	81		27 - 120
Phenol-d6 (Surr)	43		10 - 120
p-Terphenyl-d14 (Surr)	92		45 - 120

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

**Lab Sample ID: MB 570-662064/6**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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			11/26/25 13:20	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		11/26/25 13:20	1

**Lab Sample ID: LCS 570-662064/4**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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	356		ug/L		89	78 - 120

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

**Lab Sample ID: LCSD 570-662064/5**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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	367		ug/L		92	78 - 120	3	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: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: MRL 570-662064/3**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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</b>	<b>MRL</b>				<b>Limits</b>
4-Bromofluorobenzene (Surr)		104					38 - 134

**Lab Sample ID: 570-255567-E-14 MS**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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)	3000		2000	4650		ug/L		84	68 - 122
<b>Surrogate</b>		<b>MS</b>	<b>MS</b>						<b>Limits</b>
4-Bromofluorobenzene (Surr)		90							38 - 134

**Lab Sample ID: 570-255567-E-14 MSD**  
**Matrix: Water**  
**Analysis Batch: 662064**

**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)	3000		2000	4720		ug/L		88	68 - 122	2	18
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>						<b>Limits</b>		
4-Bromofluorobenzene (Surr)		92							38 - 134		

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

**Lab Sample ID: MB 570-661442/1-A**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		11/25/25 10:08	11/29/25 02:35	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		11/25/25 10:08	11/29/25 02:35	1
C8-C18	<25		25	ug/L		11/25/25 10:08	11/29/25 02:35	1
<b>Surrogate</b>		<b>MB</b>	<b>MB</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
n-Octacosane (Surr)		91				11/25/25 10:08	11/29/25 02:35	1

**Lab Sample ID: LCS 570-661442/2-A**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	2000	2060		ug/L		103	56 - 127

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

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

**Lab Sample ID: LCS 570-661442/2-A**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	104		60 - 130

**Lab Sample ID: LCSD 570-661442/3-A**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	2000	2130		ug/L		106	56 - 127	3	23	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	109		60 - 130

**Lab Sample ID: MRL 570-661442/4-A**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	0.0200	<0.020		mg/L		97	50 - 150			

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	111		60 - 130

**Lab Sample ID: 380-184133-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<25		2030	2340		ug/L		115	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	101		60 - 130

**Lab Sample ID: 380-184133-D-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 662565**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 661442**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<25		2030	2150		ug/L		106	70 - 130	8	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	92		60 - 130

# QC Association Summary

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

Job ID: 380-183856-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

## GC/MS Semi VOA

### Prep Batch: 188292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	525.2	
MB 380-188292/20-A	Method Blank	Total/NA	Water	525.2	
LCS 380-188292/22-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-188292/21-A	Lab Control Sample	Total/NA	Water	525.2	
380-183957-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-183996-C-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 188341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	525.2	188292
MB 380-188292/20-A	Method Blank	Total/NA	Water	525.2	188292
LCS 380-188292/22-A	Lab Control Sample	Total/NA	Water	525.2	188292
MRL 380-188292/21-A	Lab Control Sample	Total/NA	Water	525.2	188292
380-183957-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	188292
380-183996-C-1-A DU	Duplicate	Total/NA	Water	525.2	188292

### Prep Batch: 660359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	625.1	
MB 570-660359/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-660359/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-660359/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

### Analysis Batch: 666053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	625.1 SIM	660359
MB 570-660359/1-A	Method Blank	Total/NA	Water	625.1 SIM	660359
LCS 570-660359/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	660359
LCSD 570-660359/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	660359

### Analysis Batch: 667558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	625.1	660359
MB 570-660359/1-A	Method Blank	Total/NA	Water	625.1	660359

## GC VOA

### Analysis Batch: 662064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	8015B GRO LL	
380-183856-2	TB Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-662064/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-662064/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-662064/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-662064/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
570-255567-E-14 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
570-255567-E-14 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-183856-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

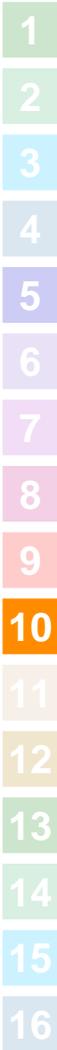
## GC Semi VOA

### Prep Batch: 661442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	3510C	
MB 570-661442/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-661442/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-661442/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-661442/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-184133-C-1-B MS	Matrix Spike	Total/NA	Water	3510C	
380-184133-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 662565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183856-1	Halawa Shaft Viewing Pool	Total/NA	Drinking Water	8015B	661442
MB 570-661442/1-A	Method Blank	Total/NA	Water	8015B	661442
LCS 570-661442/2-A	Lab Control Sample	Total/NA	Water	8015B	661442
LCSD 570-661442/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	661442
MRL 570-661442/4-A	Lab Control Sample	Total/NA	Water	8015B	661442
380-184133-C-1-B MS	Matrix Spike	Total/NA	Water	8015B	661442
380-184133-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	661442



## Lab Chronicle

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

Job ID: 380-183856-1  
 SDG: Weekly: Halawa Shaft Viewing Pool

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-1**

Date Collected: 11/18/25 09:35

Matrix: Drinking Water

Date Received: 11/20/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			188292	KRD3	EA POM	11/24/25 07:54
Total/NA	Analysis	525.2		1	188341	Q8LA	EA POM	11/24/25 17:07
Total/NA	Prep	625.1			660359	OAJ3	EET CAL 4	11/24/25 09:00
Total/NA	Analysis	625.1		1	667558	J7WE	EET CAL 4	12/10/25 00:39
Total/NA	Prep	625.1			660359	OAJ3	EET CAL 4	11/24/25 09:00
Total/NA	Analysis	625.1 SIM		1	666053	PQS1	EET CAL 4	12/07/25 06:09
Total/NA	Analysis	8015B GRO LL		1	662064	YD9V	EET CAL 4	11/26/25 16:35
Total/NA	Prep	3510C			661442	TVD6	EET CAL 4	11/25/25 10:08
Total/NA	Analysis	8015B		1	662565	H6FE	EET CAL 4	11/29/25 11:09

**Client Sample ID: TB Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-183856-2**

Date Collected: 11/18/25 09:35

Matrix: Water

Date Received: 11/20/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	662064	YD9V	EET CAL 4	11/27/25 00:29

**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: 380-183856-1  
 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	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor

## Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
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	State	3082	07-31-26

Eurofins Eaton Analytical Pomona

# Accreditation/Certification Summary

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

Job ID: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

## Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10420	07-31-26
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: 380-183856-1  
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: 380-183856-1  
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-183856-1	Halawa Shaft Viewing Pool	Drinking Water	11/18/25 09:35	11/20/25 10:10	HI0000331
380-183856-2	TB Halawa Shaft Viewing Pool	Water	11/18/25 09:35	11/20/25 10:10	

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**Eurofins Eaton Analytical Pomona**

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

**Chain of Custody Record**



eurofins

Loc: 380  
**183856**

<b>Client Information (Sub Contract Lab)</b>	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-278768.1
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,	Accreditations Required (See note): State - Hawaii	Job #: 380-183856-1
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Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 12/8/2025	<b>Analysis Requested</b> Field Filtered Sample (Yes or No) Perform 3MSMSD (Yes or No) 626.1_S1M1625_Prep(MOD) Extended PAH List 626.1625_Prep(MOD) Tentatively Identified Compounds (Hold) 8015B_DRO_LL_CS3510C_LLHNL Ranges: C10-C24/C24-C36/C36-C18 8015B_GRO_LL16030C(MOD) GRO
City: Tustin	TAT Requested (days): N/A	
State, Zip: CA, 92780	PO #: N/A	
Phone: 714-895-5494(Tel)	WO #: N/A	
Email: N/A	Project #: 38001111	
Project Name: RED-HILL	SSOW#: N/A	Other: N/A
Site: Honolulu BWS Sites		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater)	Field Filtered Sample (Yes or No)	Perform 3MSMSD (Yes or No)	626.1_S1M1625_Prep(MOD) Extended PAH List	626.1625_Prep(MOD) Tentatively Identified Compounds (Hold)	8015B_DRO_LL_CS3510C_LLHNL Ranges: C10-C24/C24-C36/C36-C18	8015B_GRO_LL16030C(MOD) GRO	Total Number off-containers	Special Instructions/Note:
HALAWA SHAFT (331-241-TP401) (380-183856-1)	11/18/25	09:35 Hawaiian	G	Water		X	X	X	X		3	MRLs are needed. Confirm any hits >RL.
HALAWA SHAFT (331-241-TP401) TB (380-183856-2)	11/18/25	09:35 Hawaiian	G	Water					X		3	MRLs are needed.



380-183856 Chain of Custody

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.

<b>Possible Hazard identification</b> Unconfirmed	<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <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
Empty Kit Relinquished by:	Special Instructions/QC Requirements:

Relinquished by: <i>[Signature]</i>	Date/Time: 11/21/25 1045	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date/Time: 11/21/25 1045	Company: <i>[Signature]</i>
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8/2.0 1.25
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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-183856-1

SDG Number: Weekly: Halawa Shaft Viewing Pool

**Login Number: 183856**

**List Number: 1**

**Creator: Segura, Ryan**

**List Source: Eurofins Eaton Analytical Pomona**

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



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-183856-1  
SDG Number: Weekly: Halawa Shaft Viewing Pool

**Login Number: 183856**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 11/21/25 11:33 AM**

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	2.0
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	