

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Weekly: Halawa Shaft Viewing Pool

JOB NUMBER

380-189557-1

Eurofins 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 Drinking Water and Wastewater West, 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: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

GC VOA

Qualifier	Qualifier Description
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 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.
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: 380-189557-1

Job ID: 380-189557-1

Eurofins Pomona

Job Narrative 380-189557-1

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 12/26/2025 9:59 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

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

Gasoline Range Organics

Method 8015B_GRO_LL: The matrix spike duplicate (MSD) recovery for analytical batch 570-678421 was outside control limits for Gasoline Range Organics (C4-C13). See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

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 was outside acceptance limits for the following matrix spike duplicate (MSD) sample: (380-189454-A-1-B MSD). The parent sample's surrogate recovery was within limits. The MSD sample has been qualified and reported.

Method 8015B_DRO_LL_CS: The laboratory control sample (LCS) for preparation batch 570-675474 and analytical batch 570-679396 recovered outside control limits for the following analytes: n-Octacosane (Surr). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8015B_DRO_LL_CS: The method reporting limit check (MRL) for preparation batch 570-675474 and analytical batch 570-679714 recovered outside control limits for the following analytes: n-Octacosane (Surr). These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been 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: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

No Detections.

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-2

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.

Client Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2,4'-DDD	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2,4'-DDE	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2,4'-DDT	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
2-Methylnaphthalene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
4,4'-DDD	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
4,4'-DDE	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
4,4'-DDT	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Acenaphthene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Acenaphthylene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Acetochlor	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Alachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
alpha-BHC	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
alpha-Chlordane	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Anthracene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 20:28	1
Atrazine	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Benz(a)anthracene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Benzo[a]pyrene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 20:28	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 20:28	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 20:28	1
beta-BHC	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		12/30/25 15:37	12/31/25 20:28	1
Bromacil	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Butachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Butylbenzylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 20:28	1
Chlorobenzilate	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Chloroneb	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Chlorpyrifos	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Chrysene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 20:28	1
delta-BHC	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		12/30/25 15:37	12/31/25 20:28	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Dieldrin	<0.0098		0.0098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Diethylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 20:28	1
Dimethylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 20:28	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		12/30/25 15:37	12/31/25 20:28	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Endosulfan sulfate	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Endrin	<0.0098		0.0098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Endrin aldehyde	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
EPTC	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Fluoranthene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1

Client Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
gamma-Chlordane	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Heptachlor	<0.0098		0.0098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Heptachlor epoxide (isomer B)	<0.0098	^3+	0.0098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Hexachlorobenzene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Isophorone	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Lindane	<0.0098		0.0098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Malathion	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Methoxychlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Metolachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Molinate	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Naphthalene	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Parathion	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Phenanthrene	<0.039		0.039	ug/L		12/30/25 15:37	12/31/25 20:28	1
Propachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Pyrene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Simazine	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Terbacil	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Terbutylazine	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Thiobencarb	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		12/30/25 15:37	12/31/25 20:28	1
trans-Nonachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 20:28	1
Trifluralin	<0.098		0.098	ug/L		12/30/25 15:37	12/31/25 20:28	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.84	T J	ug/L		3.03	N/A	12/30/25 15:37	12/31/25 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	12/30/25 15:37	12/31/25 20:28	1
Perylene-d12	83		70 - 130	12/30/25 15:37	12/31/25 20:28	1
Triphenylphosphate	108		70 - 130	12/30/25 15:37	12/31/25 20:28	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		12/27/25 08:18	01/07/26 13:11	1
2-Methylnaphthalene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Acenaphthene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Acenaphthylene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Anthracene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Benzo[a]anthracene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Benzo[a]pyrene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Chrysene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Fluoranthene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1

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Client Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

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		12/27/25 08:18	01/07/26 13:11	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Naphthalene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Phenanthrene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1
Pyrene	<0.19		0.19	ug/L		12/27/25 08:18	01/07/26 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		28 - 127	12/27/25 08:18	01/07/26 13:11	1
2-Fluorobiphenyl (Surr)	85		31 - 120	12/27/25 08:18	01/07/26 13:11	1
2-Fluorophenol (Surr)	58		17 - 120	12/27/25 08:18	01/07/26 13:11	1
Nitrobenzene-d5 (Surr)	95		27 - 120	12/27/25 08:18	01/07/26 13:11	1
Phenol-d6 (Surr)	36		10 - 120	12/27/25 08:18	01/07/26 13:11	1
p-Terphenyl-d14 (Surr)	91		45 - 120	12/27/25 08:18	01/07/26 13:11	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
Heneicosane	4.0	T J N	ug/L		12.43	629-94-7	12/27/25 08:18	01/09/26 19:50	1
Docosane	8.2	T J N	ug/L		13.01	629-97-0	12/27/25 08:18	01/09/26 19:50	1
Hexadecane, 2,6,10,14-tetramethyl-	12	T J N	ug/L		13.65	638-36-8	12/27/25 08:18	01/09/26 19:50	1
Hexacosane	11	T J N	ug/L		14.33	630-01-3	12/27/25 08:18	01/09/26 19:50	1
Octadecane	10	T J N	ug/L		15.07	593-45-3	12/27/25 08:18	01/09/26 19:50	1
Tetracosane	8.2	T J N	ug/L		15.87	646-31-1	12/27/25 08:18	01/09/26 19:50	1
Eicosane	6.3	T J N	ug/L		16.66	112-95-8	12/27/25 08:18	01/09/26 19:50	1
Hexadecane	4.2	T J N	ug/L		17.43	544-76-3	12/27/25 08:18	01/09/26 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		33 - 139	12/27/25 08:18	01/09/26 19:50	1
2-Fluorobiphenyl (Surr)	77		33 - 126	12/27/25 08:18	01/09/26 19:50	1
2-Fluorophenol (Surr)	56		12 - 120	12/27/25 08:18	01/09/26 19:50	1
Nitrobenzene-d5 (Surr)	88		36 - 120	12/27/25 08:18	01/09/26 19:50	1
Phenol-d6 (Surr)	35		10 - 120	12/27/25 08:18	01/09/26 19:50	1
p-Terphenyl-d14 (Surr)	84		47 - 131	12/27/25 08:18	01/09/26 19:50	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			01/04/26 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		38 - 134		01/04/26 20:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		12/27/25 09:07	01/07/26 20:00	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		12/27/25 09:07	01/07/26 20:00	1
C8-C18	<25		25	ug/L		12/27/25 09:07	01/07/26 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	120		60 - 130	12/27/25 09:07	01/07/26 20:00	1

Client Sample Results

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

Job ID: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-2

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

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			01/05/26 00:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		38 - 134				01/05/26 00:31	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: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0098	^3+	ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-189557-1
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)
380-189454-I-1-A MS	Matrix Spike	96	104	107
380-189454-J-1-A MSD	Matrix Spike Duplicate	97	105	108
380-189557-1	Halawa Shaft Viewing Pool	95	83	108
LCS 380-195112/22-A	Lab Control Sample	95	101	106
MB 380-195112/20-A	Method Blank	96	83	107
MRL 380-195112/21-A	Lab Control Sample	95	88	104

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)
380-189557-1	Halawa Shaft Viewing Pool	83	77	56	88	35	84
MB 570-675514/1-A	Method Blank	88	76	58	89	35	92

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)
380-189557-1	Halawa Shaft Viewing Pool	89	85	58	95	36	91
LCS 570-675514/2-A	Lab Control Sample	46	43	32	38	21	50
LCSD 570-675514/3-A	Lab Control Sample Dup	43	43	32	37	21	49
MB 570-675514/1-A	Method Blank	89	83	61	89	38	93

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: 380-189557-1
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)
380-189557-1	Halawa Shaft Viewing Pool	107
380-189557-2	TB: Halawa Shaft Viewing Pool	105
380-190087-C-1 MS	Matrix Spike	102
380-190087-C-1 MSD	Matrix Spike Duplicate	107
LCS 570-678421/1011	Lab Control Sample	91
LCSD 570-678421/12	Lab Control Sample Dup	94
MB 570-678421/13	Method Blank	98
MRL 570-678421/14	Lab Control Sample	94

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)
380-189454-A-1-A MS	Matrix Spike	116
380-189454-A-1-B MSD	Matrix Spike Duplicate	144 S1+
380-189557-1 - RA	Halawa Shaft Viewing Pool	120
LCS 570-675474/2-A	Lab Control Sample	131 S1+
LCSD 570-675474/3-A	Lab Control Sample Dup	112
MB 570-675474/1-A	Method Blank	97
MRL 570-675474/4-A	Lab Control Sample	153

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-195112/20-A
Matrix: Water
Analysis Batch: 195340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195112

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2,4'-DDD	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2,4'-DDE	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2,4'-DDT	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
2-Methylnaphthalene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
4,4'-DDD	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
4,4'-DDE	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
4,4'-DDT	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Acenaphthene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Acenaphthylene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Acetochlor	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Alachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
alpha-BHC	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
alpha-Chlordane	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Anthracene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 15:28	1
Atrazine	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Benz(a)anthracene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Benzo[a]pyrene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 15:28	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 15:28	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 15:28	1
beta-BHC	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		12/30/25 15:37	12/31/25 15:28	1
Bromacil	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Butachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Butylbenzylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 15:28	1
Chlorobenzilate	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Chloroneb	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Chlorpyrifos	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Chrysene	<0.020		0.020	ug/L		12/30/25 15:37	12/31/25 15:28	1
delta-BHC	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		12/30/25 15:37	12/31/25 15:28	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Dieldrin	<0.0099		0.0099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Diethylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 15:28	1
Dimethylphthalate	<0.49		0.49	ug/L		12/30/25 15:37	12/31/25 15:28	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		12/30/25 15:37	12/31/25 15:28	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Endosulfan sulfate	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Endrin	<0.0099		0.0099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Endrin aldehyde	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
EPTC	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 380-195112/20-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195340

Prep Batch: 195112

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Fluorene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
gamma-Chlordane	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Heptachlor	<0.0099		0.0099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Heptachlor epoxide (isomer B)	<0.0099	^3+	0.0099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Hexachlorobenzene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Isophorone	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Lindane	<0.0099		0.0099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Malathion	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Methoxychlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Metolachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Molinate	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Naphthalene	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Parathion	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Phenanthrene	<0.040		0.040	ug/L		12/30/25 15:37	12/31/25 15:28	1
Propachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Pyrene	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Simazine	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Terbacil	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Terbutylazine	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Thiobencarb	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		12/30/25 15:37	12/31/25 15:28	1
trans-Nonachlor	<0.049		0.049	ug/L		12/30/25 15:37	12/31/25 15:28	1
Trifluralin	<0.099		0.099	ug/L		12/30/25 15:37	12/31/25 15:28	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Cyclopentene, 1,2,3,4,5-pentamethyl-	1.47	T J N	ug/L		2.54	1000154-28-6	12/30/25 15:37	12/31/25 15:28	1
Undecane	2.77	T J N	ug/L		3.14	1120-21-4	12/30/25 15:37	12/31/25 15:28	1
Plumbane, diethyldimethyl-	0.797	T J N	ug/L		3.27	1762-27-2	12/30/25 15:37	12/31/25 15:28	1
Cyclohexasiloxane, dodecamethyl-	0.685	T J N	ug/L		3.90	540-97-6	12/30/25 15:37	12/31/25 15:28	1
Hexadecanamide	0.782	T J N	ug/L		7.08	629-54-9	12/30/25 15:37	12/31/25 15:28	1
9-Octadecenamide, (Z)-	8.70	T J N	ug/L		7.97	301-02-0	12/30/25 15:37	12/31/25 15:28	1
Tetradecanamide	0.537	T J N	ug/L		8.07	638-58-4	12/30/25 15:37	12/31/25 15:28	1
13-Docosenamide, (Z)-	1.26	T J N	ug/L		10.53	112-84-5	12/30/25 15:37	12/31/25 15:28	1
Unknown	0.530	T J	ug/L		15.13	N/A	12/30/25 15:37	12/31/25 15:28	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	96		70 - 130	12/30/25 15:37	12/31/25 15:28	1
Perylene-d12	83		70 - 130	12/30/25 15:37	12/31/25 15:28	1
Triphenylphosphate	107		70 - 130	12/30/25 15:37	12/31/25 15:28	1

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-195112/22-A
Matrix: Water
Analysis Batch: 195340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195112

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	1.99		ug/L		101	70 - 130
2,4'-DDD	1.97	1.90		ug/L		97	70 - 130
2,4'-DDE	1.97	2.10		ug/L		107	70 - 130
2,4'-DDT	1.97	1.95		ug/L		99	70 - 130
2,4-Dinitrotoluene	1.97	2.16		ug/L		110	70 - 130
2,6-Dinitrotoluene	1.97	2.05		ug/L		104	70 - 130
2-Methylnaphthalene	1.97	2.00		ug/L		101	70 - 130
4,4'-DDD	1.97	1.97		ug/L		100	70 - 130
4,4'-DDE	1.97	2.08		ug/L		106	70 - 130
4,4'-DDT	1.97	1.97		ug/L		100	70 - 130
Acenaphthene	1.97	1.99		ug/L		101	70 - 130
Acenaphthylene	1.97	2.18		ug/L		111	70 - 130
Acetochlor	1.97	2.10		ug/L		107	70 - 130
Alachlor	1.97	2.18		ug/L		111	70 - 130
alpha-BHC	1.97	2.20		ug/L		112	70 - 130
alpha-Chlordane	1.97	1.84		ug/L		93	70 - 130
Anthracene	1.97	2.21		ug/L		112	70 - 130
Atrazine	1.97	2.05		ug/L		104	70 - 130
Benz(a)anthracene	1.97	1.93		ug/L		98	70 - 130
Benzo[a]pyrene	1.97	2.04		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.97	1.99		ug/L		101	70 - 130
Benzo[g,h,i]perylene	1.97	2.06		ug/L		104	70 - 130
Benzo[k]fluoranthene	1.97	1.80		ug/L		91	70 - 130
beta-BHC	1.97	2.18		ug/L		111	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	2.07		ug/L		105	70 - 130
Bromacil	1.97	1.96		ug/L		100	70 - 130
Butachlor	1.97	2.30		ug/L		117	70 - 130
Butylbenzylphthalate	1.97	2.29		ug/L		116	70 - 130
Chlorobenzilate	1.97	2.04		ug/L		104	70 - 130
Chloroneb	1.97	2.13		ug/L		108	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	2.14		ug/L		109	70 - 130
Chlorpyrifos	1.97	1.92		ug/L		97	70 - 130
Chrysene	1.97	1.66		ug/L		84	70 - 130
delta-BHC	1.97	2.22		ug/L		113	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.33		ug/L		118	70 - 130
Dibenz(a,h)anthracene	1.97	2.15		ug/L		109	70 - 130
Diclorvos (DDVP)	1.97	2.24		ug/L		114	70 - 130
Dieldrin	1.97	2.04		ug/L		104	70 - 130
Diethylphthalate	1.97	2.26		ug/L		115	70 - 130
Dimethylphthalate	1.97	2.24		ug/L		114	70 - 130
Di-n-butyl phthalate	3.94	4.14		ug/L		105	70 - 130
Di-n-octyl phthalate	1.97	2.00		ug/L		101	70 - 130
Endosulfan I (Alpha)	1.97	1.91		ug/L		97	70 - 130
Endosulfan II (Beta)	1.97	2.15		ug/L		109	70 - 130
Endosulfan sulfate	1.97	2.11		ug/L		107	70 - 130
Endrin	1.97	2.14		ug/L		108	70 - 130
Endrin aldehyde	1.97	1.93		ug/L		98	60 - 130
EPTC	1.97	2.33		ug/L		118	70 - 130

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-195112/22-A

Matrix: Water

Analysis Batch: 195340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195112

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Fluoranthene	1.97	2.15		ug/L		109	70 - 130
Fluorene	1.97	2.15		ug/L		109	70 - 130
gamma-Chlordane	1.97	1.84		ug/L		94	70 - 130
Heptachlor	1.97	2.24		ug/L		114	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.00		ug/L		102	70 - 130
Hexachlorobenzene	1.97	2.21		ug/L		112	70 - 130
Hexachlorocyclopentadiene	1.97	2.06		ug/L		105	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	2.24		ug/L		114	70 - 130
Isophorone	1.97	1.95		ug/L		99	70 - 130
Lindane	1.97	2.15		ug/L		109	70 - 130
Malathion	1.97	2.19		ug/L		111	70 - 130
Methoxychlor	1.97	2.04		ug/L		103	70 - 130
Metolachlor	1.97	2.18		ug/L		111	70 - 130
Molinate	1.97	2.17		ug/L		110	70 - 130
Naphthalene	1.97	1.96		ug/L		99	70 - 130
Parathion	1.97	2.21		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	1.97	2.04		ug/L		103	70 - 130
Phenanthrene	1.97	2.04		ug/L		104	70 - 130
Propachlor	1.97	2.14		ug/L		109	70 - 130
Pyrene	1.97	1.95		ug/L		99	70 - 130
Simazine	1.97	1.95		ug/L		99	70 - 130
Terbacil	1.97	2.02		ug/L		103	70 - 130
Terbutylazine	1.97	2.20		ug/L		112	70 - 130
Thiobencarb	1.97	2.08		ug/L		106	70 - 130
trans-Nonachlor	1.97	1.76		ug/L		89	70 - 130
Trifluralin	1.97	2.03		ug/L		103	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: MRL 380-195112/21-A

Matrix: Water

Analysis Batch: 195340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195112

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	0.0985	0.116		ug/L		118	50 - 150
2,4'-DDD	0.0985	0.0850	J	ug/L		86	50 - 150
2,4'-DDE	0.0985	0.0894	J	ug/L		91	50 - 150
2,4'-DDT	0.0985	0.107		ug/L		109	50 - 150
2,4-Dinitrotoluene	0.0985	0.111		ug/L		112	50 - 150
2,6-Dinitrotoluene	0.0985	0.135		ug/L		137	50 - 150
2-Methylnaphthalene	0.0985	0.112		ug/L		113	50 - 150
4,4'-DDD	0.0985	0.114		ug/L		116	50 - 150
4,4'-DDE	0.0985	0.110		ug/L		112	50 - 150
4,4'-DDT	0.0985	0.115		ug/L		117	50 - 150
Acenaphthene	0.0985	0.0912	J	ug/L		93	50 - 150

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QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-195112/21-A

Matrix: Water

Analysis Batch: 195340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195112

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthylene	0.0985	0.0848	J	ug/L		86	50 - 150
Acetochlor	0.0985	0.122		ug/L		124	50 - 150
Alachlor	0.0493	0.0545		ug/L		111	50 - 150
alpha-BHC	0.0985	0.0939	J	ug/L		95	50 - 150
alpha-Chlordane	0.0246	0.0301	J	ug/L		122	50 - 150
Anthracene	0.0197	0.0216		ug/L		109	50 - 150
Atrazine	0.0493	0.0657		ug/L		133	50 - 150
Benz(a)anthracene	0.0493	0.0564		ug/L		114	50 - 150
Benzo[a]pyrene	0.0197	0.0234		ug/L		119	50 - 150
Benzo[b]fluoranthene	0.0197	0.0199	J	ug/L		101	50 - 150
Benzo[g,h,i]perylene	0.0493	0.0488	J	ug/L		99	50 - 150
Benzo[k]fluoranthene	0.0197	0.0221		ug/L		112	50 - 150
beta-BHC	0.0985	0.111		ug/L		112	50 - 150
Bis(2-ethylhexyl) phthalate	0.591	0.646		ug/L		109	50 - 150
Bromacil	0.0985	0.118		ug/L		120	50 - 150
Butachlor	0.0493	0.0582		ug/L		118	50 - 150
Butylbenzylphthalate	0.493	0.560		ug/L		114	50 - 150
Chlorobenzilate	0.0985	0.117		ug/L		119	50 - 150
Chloroneb	0.0985	0.104		ug/L		106	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0985	0.134		ug/L		136	50 - 150
Chlorpyrifos	0.0493	0.0663		ug/L		135	50 - 150
Chrysene	0.0197	0.0204		ug/L		104	50 - 150
delta-BHC	0.0985	0.0969	J	ug/L		98	50 - 150
Di(2-ethylhexyl)adipate	0.591	0.785		ug/L		133	50 - 150
Dibenz(a,h)anthracene	0.0493	0.0464	J	ug/L		94	50 - 150
Diclorvos (DDVP)	0.0493	0.0558		ug/L		113	50 - 150
Dieldrin	0.00985	0.00917	J	ug/L		93	50 - 150
Diethylphthalate	0.493	0.542		ug/L		110	50 - 150
Dimethylphthalate	0.493	0.502		ug/L		102	50 - 150
Di-n-butyl phthalate	0.493	0.513	J	ug/L		104	49 - 243
Di-n-octyl phthalate	0.0985	0.107		ug/L		108	50 - 150
Endosulfan I (Alpha)	0.0985	0.0908	J	ug/L		92	50 - 150
Endosulfan II (Beta)	0.0985	0.0943	J	ug/L		96	50 - 150
Endosulfan sulfate	0.0985	0.109		ug/L		111	50 - 150
Endrin	0.00985	0.00937	J	ug/L		95	50 - 150
Endrin aldehyde	0.0985	0.130		ug/L		132	50 - 150
EPTC	0.0985	0.108		ug/L		110	50 - 150
Fluoranthene	0.0985	0.102		ug/L		104	50 - 150
Fluorene	0.0493	0.0510		ug/L		104	50 - 150
gamma-Chlordane	0.0246	0.0287	J	ug/L		117	50 - 150
Heptachlor	0.00985	0.0128		ug/L		129	50 - 150
Heptachlor epoxide (isomer B)	0.00985	0.0154	^3+	ug/L		156	50 - 150
Hexachlorobenzene	0.0493	0.0448	J	ug/L		91	50 - 150
Hexachlorocyclopentadiene	0.0493	0.0473	J	ug/L		96	50 - 150
Indeno[1,2,3-cd]pyrene	0.0493	0.0520		ug/L		105	50 - 150
Isophorone	0.0985	0.109		ug/L		110	50 - 150
Lindane	0.00985	0.00983	J	ug/L		100	50 - 150
Malathion	0.0985	0.109		ug/L		111	50 - 150
Methoxychlor	0.0493	0.0579		ug/L		118	50 - 150

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QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-195112/21-A

Matrix: Water

Analysis Batch: 195340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195112

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Metolachlor	0.0493	0.0546		ug/L		111	50 - 150
Molinate	0.0985	0.128		ug/L		130	50 - 150
Naphthalene	0.0985	0.112		ug/L		113	50 - 150
Parathion	0.0985	0.0885	J	ug/L		90	50 - 150
Pendimethalin (Penoxaline)	0.0985	0.0914	J	ug/L		93	50 - 150
Phenanthrene	0.0394	0.0469		ug/L		119	50 - 150
Propachlor	0.0493	0.0575		ug/L		117	50 - 150
Pyrene	0.0493	0.0565		ug/L		115	50 - 150
Simazine	0.0493	0.0549		ug/L		111	50 - 150
Terbacil	0.0985	0.101		ug/L		103	50 - 150
Terbutylazine	0.0985	0.108		ug/L		109	50 - 150
Thiobencarb	0.0985	0.113		ug/L		114	50 - 150
trans-Nonachlor	0.0246	<0.026		ug/L		103	50 - 150
Trifluralin	0.0985	0.101		ug/L		103	50 - 150

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130
Perylene-d 12	88		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: 380-189454-I-1-A MS

Matrix: Water

Analysis Batch: 195340

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 195112

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
1-Methylnaphthalene	<0.097		1.94	1.99		ug/L		102	70 - 130
2,4'-DDD	<0.097		1.94	1.89		ug/L		98	70 - 130
2,4'-DDE	<0.097		1.94	1.99		ug/L		103	70 - 130
2,4'-DDT	<0.097		1.94	1.78		ug/L		92	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	2.22		ug/L		115	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	2.05		ug/L		106	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.97		ug/L		101	70 - 130
4,4'-DDD	<0.097		1.94	1.93		ug/L		100	70 - 130
4,4'-DDE	<0.097		1.94	1.90		ug/L		98	70 - 130
4,4'-DDT	<0.097		1.94	1.78		ug/L		92	70 - 130
Acenaphthene	<0.097		1.94	1.98		ug/L		102	70 - 130
Acenaphthylene	<0.097		1.94	2.14		ug/L		111	70 - 130
Acetochlor	<0.097		1.94	2.14		ug/L		111	70 - 130
Alachlor	<0.049		1.94	2.22		ug/L		115	70 - 130
alpha-BHC	<0.097		1.94	2.07		ug/L		107	70 - 130
alpha-Chlordane	<0.049		1.94	1.76		ug/L		91	70 - 130
Anthracene	<0.019		1.94	1.95		ug/L		101	70 - 130
Atrazine	<0.049		1.94	1.97		ug/L		102	70 - 130
Benz(a)anthracene	<0.049		1.94	1.86		ug/L		96	70 - 130
Benzo[a]pyrene	<0.019		1.94	2.01		ug/L		104	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.03		ug/L		105	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	2.11		ug/L		109	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	1.72		ug/L		89	70 - 130

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QC Sample Results

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

Job ID: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-189454-I-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195340

Prep Batch: 195112

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
beta-BHC	<0.097		1.94	2.10		ug/L		109	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.95		ug/L		101	70 - 130
Bromacil	<0.097		1.94	1.96		ug/L		101	70 - 130
Butachlor	<0.049		1.94	2.29		ug/L		118	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.32		ug/L		120	70 - 130
Chlorobenzilate	<0.097		1.94	2.10		ug/L		109	70 - 130
Chloroneb	<0.097		1.94	2.07		ug/L		107	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.21		ug/L		114	70 - 130
Chlorpyrifos	<0.049		1.94	1.88		ug/L		97	70 - 130
Chrysene	<0.019		1.94	1.66		ug/L		86	70 - 130
delta-BHC	<0.097		1.94	2.22		ug/L		115	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.17		ug/L		112	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	2.14		ug/L		111	70 - 130
Diclorvos (DDVP)	<0.049		1.94	2.21		ug/L		114	70 - 130
Dieldrin	<0.0097		1.94	2.07		ug/L		107	70 - 130
Diethylphthalate	<0.49		1.94	2.18		ug/L		113	70 - 130
Dimethylphthalate	<0.49		1.94	2.22		ug/L		115	70 - 130
Di-n-butyl phthalate	<0.97		3.87	4.17		ug/L		108	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.87		ug/L		97	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.94		ug/L		100	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.11		ug/L		109	70 - 130
Endosulfan sulfate	<0.097		1.94	2.16		ug/L		112	70 - 130
Endrin	<0.0097		1.94	2.18		ug/L		112	70 - 130
Endrin aldehyde	<0.097		1.94	1.56		ug/L		81	60 - 130
EPTC	<0.097		1.94	2.27		ug/L		117	70 - 130
Fluoranthene	<0.097		1.94	2.12		ug/L		110	70 - 130
Fluorene	<0.049		1.94	2.14		ug/L		110	70 - 130
gamma-Chlordane	<0.049		1.94	1.80		ug/L		93	70 - 130
Heptachlor	<0.0097		1.94	2.21		ug/L		114	70 - 130
Heptachlor epoxide (isomer B)	<0.0097	^3+	1.94	2.00		ug/L		103	70 - 130
Hexachlorobenzene	<0.049		1.94	2.15		ug/L		111	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	1.86		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	2.27		ug/L		117	70 - 130
Isophorone	<0.097		1.94	1.93		ug/L		100	70 - 130
Lindane	<0.0097		1.94	2.07		ug/L		107	70 - 130
Malathion	<0.097		1.94	2.15		ug/L		111	70 - 130
Methoxychlor	<0.049		1.94	2.00		ug/L		103	70 - 130
Metolachlor	<0.049		1.94	2.17		ug/L		112	70 - 130
Molinate	<0.097		1.94	2.13		ug/L		110	70 - 130
Naphthalene	<0.097		1.94	1.89		ug/L		98	70 - 130
Parathion	<0.097		1.94	2.29		ug/L		118	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	2.17		ug/L		112	70 - 130
Phenanthrene	<0.039		1.94	2.03		ug/L		105	70 - 130
Propachlor	<0.049		1.94	2.10		ug/L		109	70 - 130
Pyrene	<0.049		1.94	1.97		ug/L		101	70 - 130
Simazine	<0.049		1.94	1.96		ug/L		101	70 - 130
Terbacil	<0.097		1.94	2.16		ug/L		112	70 - 130
Terbuthylazine	<0.097		1.94	2.17		ug/L		112	70 - 130
Thiobencarb	<0.097		1.94	2.07		ug/L		107	70 - 130

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-189454-I-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195340

Prep Batch: 195112

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
trans-Nonachlor	<0.049		1.94	1.72		ug/L		89	70 - 130
Trifluralin	<0.097		1.94	2.09		ug/L		108	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	104		70 - 130
Triphenylphosphate	107		70 - 130

Lab Sample ID: 380-189454-J-1-A MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195340

Prep Batch: 195112

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1-Methylnaphthalene	<0.097		1.92	2.02		ug/L		104	70 - 130	1	20
2,4'-DDD	<0.097		1.92	1.91		ug/L		99	70 - 130	1	20
2,4'-DDE	<0.097		1.92	2.03		ug/L		106	70 - 130	2	20
2,4'-DDT	<0.097		1.92	1.81		ug/L		94	70 - 130	2	20
2,4-Dinitrotoluene	<0.097		1.92	2.31		ug/L		120	70 - 130	4	20
2,6-Dinitrotoluene	<0.097		1.92	2.17		ug/L		113	70 - 130	6	20
2-Methylnaphthalene	<0.097		1.92	2.00		ug/L		104	70 - 130	1	20
4,4'-DDD	<0.097		1.92	1.96		ug/L		102	70 - 130	2	20
4,4'-DDE	<0.097		1.92	1.91		ug/L		99	70 - 130	0	20
4,4'-DDT	<0.097		1.92	1.89		ug/L		98	70 - 130	6	20
Acenaphthene	<0.097		1.92	1.96		ug/L		102	70 - 130	1	20
Acenaphthylene	<0.097		1.92	2.20		ug/L		115	70 - 130	3	20
Acetochlor	<0.097		1.92	2.14		ug/L		111	70 - 130	0	20
Alachlor	<0.049		1.92	2.22		ug/L		115	70 - 130	0	20
alpha-BHC	<0.097		1.92	2.15		ug/L		112	70 - 130	4	20
alpha-Chlordane	<0.049		1.92	1.82		ug/L		95	70 - 130	3	20
Anthracene	<0.019		1.92	1.96		ug/L		102	70 - 130	1	20
Atrazine	<0.049		1.92	2.08		ug/L		108	70 - 130	5	20
Benz(a)anthracene	<0.049		1.92	1.91		ug/L		99	70 - 130	2	20
Benzo[a]pyrene	<0.019		1.92	1.98		ug/L		103	70 - 130	1	20
Benzo[b]fluoranthene	<0.019		1.92	1.97		ug/L		103	70 - 130	3	20
Benzo[g,h,i]perylene	<0.049		1.92	2.04		ug/L		106	70 - 130	3	20
Benzo[k]fluoranthene	<0.019		1.92	1.71		ug/L		89	70 - 130	1	20
beta-BHC	<0.097		1.92	2.16		ug/L		112	70 - 130	2	20
Bis(2-ethylhexyl) phthalate	<0.58		1.92	1.93		ug/L		100	70 - 130	1	20
Bromacil	<0.097		1.92	1.94		ug/L		101	70 - 130	1	20
Butachlor	<0.049		1.92	2.26		ug/L		118	70 - 130	1	20
Butylbenzylphthalate	<0.49		1.92	2.29		ug/L		119	70 - 130	1	20
Chlorobenzilate	<0.097		1.92	2.11		ug/L		110	70 - 130	0	20
Chloroneb	<0.097		1.92	2.13		ug/L		111	70 - 130	3	20
Chlorothalonil (Draconil, Bravo)	<0.097		1.92	2.27		ug/L		118	70 - 130	3	20
Chlorpyrifos	<0.049		1.92	1.95		ug/L		102	70 - 130	4	20
Chrysene	<0.019		1.92	1.63		ug/L		85	70 - 130	2	20
delta-BHC	<0.097		1.92	2.22		ug/L		116	70 - 130	0	20
Di(2-ethylhexyl)adipate	<0.58		1.92	2.19		ug/L		114	70 - 130	1	20

Eurofins Pomona

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-189454-J-1-A MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 195340

Prep Batch: 195112

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Dibenz(a,h)anthracene	<0.049		1.92	2.12		ug/L		110	70 - 130	1	20
Diclorvos (DDVP)	<0.049		1.92	2.32		ug/L		121	70 - 130	5	20
Dieldrin	<0.0097		1.92	2.10		ug/L		109	70 - 130	1	20
Diethylphthalate	<0.49		1.92	2.30		ug/L		120	70 - 130	5	20
Dimethylphthalate	<0.49		1.92	2.29		ug/L		119	70 - 130	3	20
Di-n-butyl phthalate	<0.97		3.84	4.18		ug/L		109	70 - 130	0	20
Di-n-octyl phthalate	<0.097		1.92	1.79		ug/L		93	70 - 130	4	20
Endosulfan I (Alpha)	<0.097		1.92	1.91		ug/L		100	70 - 130	2	20
Endosulfan II (Beta)	<0.097		1.92	2.10		ug/L		109	70 - 130	1	20
Endosulfan sulfate	<0.097		1.92	2.18		ug/L		114	70 - 130	1	20
Endrin	<0.0097		1.92	2.21		ug/L		115	70 - 130	2	20
Endrin aldehyde	<0.097		1.92	1.58		ug/L		82	60 - 130	1	20
EPTC	<0.097		1.92	2.32		ug/L		121	70 - 130	2	20
Fluoranthene	<0.097		1.92	2.12		ug/L		110	70 - 130	0	20
Fluorene	<0.049		1.92	2.17		ug/L		113	70 - 130	1	20
gamma-Chlordane	<0.049		1.92	1.88		ug/L		98	70 - 130	4	20
Heptachlor	<0.0097		1.92	2.25		ug/L		117	70 - 130	2	20
Heptachlor epoxide (isomer B)	<0.0097	^3+	1.92	1.98		ug/L		103	70 - 130	1	20
Hexachlorobenzene	<0.049		1.92	2.17		ug/L		113	70 - 130	1	20
Hexachlorocyclopentadiene	<0.049		1.92	2.01		ug/L		105	70 - 130	8	20
Indeno[1,2,3-cd]pyrene	<0.049		1.92	2.24		ug/L		117	70 - 130	2	20
Isophorone	<0.097		1.92	1.96		ug/L		102	70 - 130	1	20
Lindane	<0.0097		1.92	2.14		ug/L		111	70 - 130	3	20
Malathion	<0.097		1.92	2.18		ug/L		114	70 - 130	1	20
Methoxychlor	<0.049		1.92	2.04		ug/L		106	70 - 130	2	20
Metolachlor	<0.049		1.92	2.14		ug/L		112	70 - 130	2	20
Molinate	<0.097		1.92	2.19		ug/L		114	70 - 130	3	20
Naphthalene	<0.097		1.92	1.93		ug/L		101	70 - 130	2	20
Parathion	<0.097		1.92	2.33		ug/L		121	70 - 130	2	20
Pendimethalin (Penoxaline)	<0.097		1.92	2.24		ug/L		117	70 - 130	3	20
Phenanthrene	<0.039		1.92	2.02		ug/L		105	70 - 130	1	20
Propachlor	<0.049		1.92	2.15		ug/L		112	70 - 130	2	20
Pyrene	<0.049		1.92	1.96		ug/L		102	70 - 130	1	20
Simazine	<0.049		1.92	1.99		ug/L		104	70 - 130	2	20
Terbacil	<0.097		1.92	2.17		ug/L		113	70 - 130	0	20
Terbutylazine	<0.097		1.92	2.24		ug/L		117	70 - 130	3	20
Thiobencarb	<0.097		1.92	2.10		ug/L		109	70 - 130	1	20
trans-Nonachlor	<0.049		1.92	1.71		ug/L		89	70 - 130	1	20
Trifluralin	<0.097		1.92	2.16		ug/L		113	70 - 130	3	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	105		70 - 130
Triphenylphosphate	108		70 - 130

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MB 570-675514/1-A
Matrix: Water
Analysis Batch: 680467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675514

<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>12/26/25 13:32</i>	<i>01/09/26 18:16</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>	<i>88</i>		<i>33 - 139</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>76</i>		<i>33 - 126</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>58</i>		<i>12 - 120</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>89</i>		<i>36 - 120</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>35</i>		<i>10 - 120</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>92</i>		<i>47 - 131</i>	<i>12/26/25 13:32</i>	<i>01/09/26 18:16</i>	<i>1</i>

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

Lab Sample ID: MB 570-675514/1-A
Matrix: Water
Analysis Batch: 679405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675514

<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>
<i>1-Methylnaphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Acenaphthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Acenaphthylene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Benzo[g,h,i]perylene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Chrysene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Fluorene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Indeno[1,2,3-cd]pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Naphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Phenanthrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>12/26/25 13:32</i>	<i>01/06/26 20:21</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>	<i>89</i>		<i>28 - 127</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>83</i>		<i>31 - 120</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>61</i>		<i>17 - 120</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>89</i>		<i>27 - 120</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>38</i>		<i>10 - 120</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>93</i>		<i>45 - 120</i>	<i>12/26/25 13:32</i>	<i>01/06/26 20:21</i>	<i>1</i>

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-675514/2-A

Matrix: Water

Analysis Batch: 679405

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 675514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
1-Methylnaphthalene	20.0	15.9		ug/L		79	47 - 120	
2-Methylnaphthalene	20.0	15.7		ug/L		78	43 - 120	
Acenaphthene	20.0	19.0		ug/L		95	60 - 132	
Acenaphthylene	20.0	19.1		ug/L		96	54 - 126	
Anthracene	20.0	19.0		ug/L		95	43 - 120	
Benzo[a]anthracene	20.0	21.4		ug/L		107	42 - 133	
Benzo[a]pyrene	20.0	19.7		ug/L		99	32 - 148	
Benzo[b]fluoranthene	20.0	21.4		ug/L		107	42 - 140	
Benzo[g,h,i]perylene	20.0	20.3		ug/L		101	1 - 195	
Benzo[k]fluoranthene	20.0	20.1		ug/L		100	25 - 146	
Chrysene	20.0	19.9		ug/L		100	44 - 140	
Dibenz(a,h)anthracene	20.0	22.1		ug/L		111	1 - 200	
Fluoranthene	20.0	20.3		ug/L		102	43 - 121	
Fluorene	20.0	19.6		ug/L		98	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	23.0		ug/L		115	1 - 151	
Naphthalene	20.0	14.6		ug/L		73	36 - 120	
Phenanthrene	20.0	19.4		ug/L		97	65 - 120	
Pyrene	20.0	20.9		ug/L		105	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	46		28 - 127
2-Fluorobiphenyl (Surr)	43		31 - 120
2-Fluorophenol (Surr)	32		17 - 120
Nitrobenzene-d5 (Surr)	38		27 - 120
Phenol-d6 (Surr)	21		10 - 120
p-Terphenyl-d14 (Surr)	50		45 - 120

Lab Sample ID: LCSD 570-675514/3-A

Matrix: Water

Analysis Batch: 679405

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 675514

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
									RPD	Limit
1-Methylnaphthalene	20.0	15.9		ug/L		79	47 - 120	0	20	
2-Methylnaphthalene	20.0	15.5		ug/L		78	43 - 120	1	20	
Acenaphthene	20.0	18.6		ug/L		93	60 - 132	2	29	
Acenaphthylene	20.0	18.7		ug/L		94	54 - 126	2	45	
Anthracene	20.0	19.3		ug/L		96	43 - 120	1	40	
Benzo[a]anthracene	20.0	20.9		ug/L		104	42 - 133	2	32	
Benzo[a]pyrene	20.0	19.9		ug/L		100	32 - 148	1	43	
Benzo[b]fluoranthene	20.0	20.1		ug/L		101	42 - 140	6	43	
Benzo[g,h,i]perylene	20.0	19.8		ug/L		99	1 - 195	2	61	
Benzo[k]fluoranthene	20.0	19.1		ug/L		95	25 - 146	5	38	
Chrysene	20.0	19.4		ug/L		97	44 - 140	3	53	
Dibenz(a,h)anthracene	20.0	21.4		ug/L		107	1 - 200	4	75	
Fluoranthene	20.0	19.7		ug/L		99	43 - 121	3	40	
Fluorene	20.0	18.9		ug/L		95	70 - 120	3	23	
Indeno[1,2,3-cd]pyrene	20.0	21.9		ug/L		110	1 - 151	5	60	
Naphthalene	20.0	14.4		ug/L		72	36 - 120	1	39	

Eurofins Pomona

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCSD 570-675514/3-A
Matrix: Water
Analysis Batch: 679405

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675514

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	18.7		ug/L		94	65 - 120	4	24
Pyrene	20.0	20.7		ug/L		103	70 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	43		28 - 127
2-Fluorobiphenyl (Surr)	43		31 - 120
2-Fluorophenol (Surr)	32		17 - 120
Nitrobenzene-d5 (Surr)	37		27 - 120
Phenol-d6 (Surr)	21		10 - 120
p-Terphenyl-d14 (Surr)	49		45 - 120

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

Lab Sample ID: MB 570-678421/13
Matrix: Water
Analysis Batch: 678421

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			01/04/26 18:26	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134		01/04/26 18:26	1

Lab Sample ID: LCS 570-678421/1011
Matrix: Water
Analysis Batch: 678421

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	444		ug/L		111	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	91		38 - 134

Lab Sample ID: LCSD 570-678421/12
Matrix: Water
Analysis Batch: 678421

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	426		ug/L		107	78 - 120	4	10

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	94		38 - 134

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 570-678421/14
Matrix: Water
Analysis Batch: 678421

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	9.44	J	ug/L		94	50 - 150
Surrogate		MRL	MRL				Limits
4-Bromofluorobenzene (Surr)		94					38 - 134

Lab Sample ID: 380-190087-C-1 MS
Matrix: Water
Analysis Batch: 678421

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10	F1	400	490		ug/L		122	68 - 122
Surrogate		MS		MS					Limits
4-Bromofluorobenzene (Surr)		102							38 - 134

Lab Sample ID: 380-190087-C-1 MSD
Matrix: Water
Analysis Batch: 678421

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10	F1	400	498	F1	ug/L		125	68 - 122	2	18
Surrogate		MSD		MSD					Limits		
4-Bromofluorobenzene (Surr)		107							38 - 134		

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

Lab Sample ID: MB 570-675474/1-A
Matrix: Water
Analysis Batch: 679396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675474

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		12/26/25 12:28	01/07/26 06:32	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		12/26/25 12:28	01/07/26 06:32	1
C8-C18	<25		25	ug/L		12/26/25 12:28	01/07/26 06:32	1
Surrogate		MB				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)		97				12/26/25 12:28	01/07/26 06:32	1

Lab Sample ID: LCS 570-675474/2-A
Matrix: Water
Analysis Batch: 679396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1380		ug/L		87	56 - 127

Eurofins Pomona

QC Sample Results

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 570-675474/2-A
Matrix: Water
Analysis Batch: 679396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675474

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	131	S1+	60 - 130

Lab Sample ID: LCSD 570-675474/3-A
Matrix: Water
Analysis Batch: 679396

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675474

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	1600	1380		ug/L		86	56 - 127	0	23	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	112		60 - 130

Lab Sample ID: MRL 570-675474/4-A
Matrix: Water
Analysis Batch: 679714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675474

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	0.0200	0.0231	J	mg/L		116	50 - 150			

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	153		60 - 130

Lab Sample ID: 380-189454-A-1-A MS
Matrix: Water
Analysis Batch: 679714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 675474

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<26		1680	1570		ug/L		93	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	116		60 - 130

Lab Sample ID: 380-189454-A-1-B MSD
Matrix: Water
Analysis Batch: 679714

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 675474

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<26		1650	1460		ug/L		88	70 - 130	8	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	144	S1+	60 - 130

QC Association Summary

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

Job ID: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

GC/MS Semi VOA

Prep Batch: 195112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	
MB 380-195112/20-A	Method Blank	Total/NA	Water	525.2	
LCS 380-195112/22-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-195112/21-A	Lab Control Sample	Total/NA	Water	525.2	
380-189454-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-189454-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	

Analysis Batch: 195340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	195112
MB 380-195112/20-A	Method Blank	Total/NA	Water	525.2	195112
LCS 380-195112/22-A	Lab Control Sample	Total/NA	Water	525.2	195112
MRL 380-195112/21-A	Lab Control Sample	Total/NA	Water	525.2	195112
380-189454-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	195112
380-189454-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	195112

Prep Batch: 675514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	
MB 570-675514/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-675514/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-675514/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 679405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-675514/1-A	Method Blank	Total/NA	Water	625.1 SIM	675514
LCS 570-675514/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	675514
LCSD 570-675514/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	675514

Analysis Batch: 679667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1 SIM	675514

Analysis Batch: 680467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	675514
MB 570-675514/1-A	Method Blank	Total/NA	Water	625.1	675514

GC VOA

Analysis Batch: 678421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
380-189557-2	TB: Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-678421/13	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-678421/1011	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-678421/12	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-678421/14	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-190087-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-190087-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

GC Semi VOA

Prep Batch: 675474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1 - RA	Halawa Shaft Viewing Pool	Total/NA	Water	3510C	
MB 570-675474/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-675474/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-675474/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-675474/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-189454-A-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-189454-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 679396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-675474/1-A	Method Blank	Total/NA	Water	8015B	675474
LCS 570-675474/2-A	Lab Control Sample	Total/NA	Water	8015B	675474
LCSD 570-675474/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	675474

Analysis Batch: 679714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-189557-1 - RA	Halawa Shaft Viewing Pool	Total/NA	Water	8015B	675474
MRL 570-675474/4-A	Lab Control Sample	Total/NA	Water	8015B	675474
380-189454-A-1-A MS	Matrix Spike	Total/NA	Water	8015B	675474
380-189454-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	675474



Lab Chronicle

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

Job ID: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-1

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			195112	IQ42	EA POM	12/30/25 15:37
Total/NA	Analysis	525.2		1	195340	Q8LA	EA POM	12/31/25 20:28
Total/NA	Prep	625.1			675514	VAW2	EET CAL 4	12/27/25 08:18
Total/NA	Analysis	625.1		1	680467	J7WE	EET CAL 4	01/09/26 19:50
Total/NA	Prep	625.1			675514	VAW2	EET CAL 4	12/27/25 08:18
Total/NA	Analysis	625.1 SIM		1	679667	PQS1	EET CAL 4	01/07/26 13:11
Total/NA	Analysis	8015B GRO LL		1	678421	YD9V	EET CAL 4	01/04/26 20:50
Total/NA	Prep	3510C	RA		675474	TVD6	EET CAL 4	12/27/25 09:07
Total/NA	Analysis	8015B	RA	1	679714	NR	EET CAL 4	01/07/26 20:00

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-189557-2

Date Collected: 12/23/25 09:15

Matrix: Water

Date Received: 12/26/25 09:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	678421	YD9V	EET CAL 4	01/05/26 00:31

Laboratory References:

EA POM = Eurofins 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: 380-189557-1
 SDG: Weekly: Halawa Shaft Viewing Pool

Laboratory: Eurofins 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	11-30-26

Accreditation/Certification Summary

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

Job ID: 380-189557-1
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: 380-189557-1
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 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: 380-189557-1
SDG: Weekly: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-189557-1	Halawa Shaft Viewing Pool	Water	12/23/25 09:15	12/26/25 09:59	Hawaii
380-189557-2	TB: Halawa Shaft Viewing Pool	Water	12/23/25 09:15	12/26/25 09:59	Hawaii

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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
189557

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Lopez, Maria		Carrier Tracking No(s): N/A		COC No: 380-290165.1					
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 L				Accreditations Required (See note): State - Hawaii				Job #: 380-189557-1					
Address: 2841 Dow Avenue, Suite 100, City: Tustin, State, Zip: CA, 92780 Phone: 714-895-5494(Tel) Email: N/A		Due Date Requested: 1/12/2026 TAT Requested (days): N/A		Analysis Requested						Preservation Codes:			
Project Name: RED-HILL		Project #: 38001111		Field Filtered Samples (Enter No) : Perform MS/MSD (Enter No) : 801BB_DRO_LL_CS0510C_LLHNL Ranges: C10, C24/C24-C36/C8-C18 801BB_GRO_LL0500C(MOD) GRO 625_1_SIM625_Prep(MOD) Extended PAH List						Total Number of containers: Other: N/A			
Site: Honolulu BWS Sites		SSOW: N/A											
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil/sed, BT=BIOM, AA=Air)							Special Instructions/Note:	
				Preservation Code:									
Halawa Shaft Viewing Pool (380-189557-1)		12/23/25	09:15 Hawaiian	G	Water		X	X	X			7	MRLs are needed. Confirm any hits >RL.
TB: Halawa Shaft Viewing Pool (380-189557-2)		12/23/25	09:15 Hawaiian	G	Water			X				2	MRLs are needed.
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/mst/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.													
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:							
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:					
Relinquished by: <i>[Signature]</i>				Date/Time: 12/26/25 1523		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date/Time: 12/26 1623		Company: way	
Relinquished by: <i>[Signature]</i>				Date/Time: 12/26 1611		Company: way		Received by: <i>[Signature]</i>		Date/Time: 12-26-25 1611		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: 1511-0 121 1410-9 25120									

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-189557-1
SDG Number: Weekly: Halawa Shaft Viewing Pool

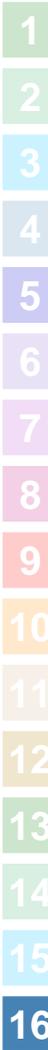
Login Number: 189557

List Number: 1

Creator: Hernandez, Orlando

List Source: Eurofins 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").	N/A	
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: 380-189557-1
SDG Number: Weekly: Halawa Shaft Viewing Pool

Login Number: 189557

List Number: 2

Creator: Szyborski, Jessica

List Source: Eurofins Calscience

List Creation: 12/26/25 05:46 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5/1.0
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	

