

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Weekly: Ka'amilo Wells Pump 1/Pump 2

JOB NUMBER

380-171890-1

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
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Definitions/Glossary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low 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 Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-171890-1

Job ID: 380-171890-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-171890-1

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 9/17/2025 9:33 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 4.1°C.

GC/MS Semi VOA

Method 625.1_SIM: The laboratory control sample (LCS) for preparation batch 570-627171 and analytical batch 570-630004 recovered outside control limits for the following analytes: Fluorene and Pyrene.

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: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.080		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.015		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB:Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-2

No Detections.

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.066		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.014		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-4

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-1

Date Collected: 09/15/25 12:12

Matrix: Water

Date Received: 09/17/25 09:33

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
4,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
4,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
4,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Acenaphthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Acenaphthylene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Acetochlor	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Alachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
alpha-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
alpha-Chlordane	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Anthracene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:31	1
Atrazine	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Benz(a)anthracene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:31	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:31	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:31	1
beta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 13:31	1
Bromacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Butachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Butylbenzylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:31	1
Chlorobenzilate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Chloroneb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Chlorpyrifos	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Chrysene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:31	1
delta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 13:31	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Dieldrin	0.080		0.0097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Diethylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:31	1
Dimethylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:31	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/18/25 08:30	09/19/25 13:31	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Endrin	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Endrin aldehyde	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
EPTC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Fluoranthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1

Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-1

Date Collected: 09/15/25 12:12

Matrix: Water

Date Received: 09/17/25 09:33

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		09/18/25 08:30	09/19/25 13:31	1
gamma-Chlordane	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Heptachlor	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Heptachlor epoxide (isomer B)	0.015		0.0097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Hexachlorobenzene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Isophorone	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Lindane	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Malathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Methoxychlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Metolachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Molinate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Naphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Parathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Phenanthrene	<0.039		0.039	ug/L		09/18/25 08:30	09/19/25 13:31	1
Propachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Pyrene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Simazine	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Terbacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Terbutylazine	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Thiobencarb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/18/25 08:30	09/19/25 13:31	1
trans-Nonachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:31	1
Trifluralin	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:31	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	09/18/25 08:30	09/19/25 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	09/18/25 08:30	09/19/25 13:31	1
Perylene-d12	95		70 - 130	09/18/25 08:30	09/19/25 13:31	1
Triphenylphosphate	115		70 - 130	09/18/25 08:30	09/19/25 13:31	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		09/18/25 04:51	09/30/25 17:01	1
2-Methylnaphthalene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Acenaphthene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Acenaphthylene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Benzo[a]anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Benzo[a]pyrene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Chrysene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-1

Date Collected: 09/15/25 12:12

Matrix: Water

Date Received: 09/17/25 09:33

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		09/18/25 04:51	09/30/25 17:01	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Naphthalene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Phenanthrene	<0.19		0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1
Pyrene	<0.19	*-	0.19	ug/L		09/18/25 04:51	09/30/25 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	61		28 - 127	09/18/25 04:51	09/30/25 17:01	1
2-Fluorobiphenyl (Surr)	65		31 - 120	09/18/25 04:51	09/30/25 17:01	1
2-Fluorophenol (Surr)	44		17 - 120	09/18/25 04:51	09/30/25 17:01	1
Nitrobenzene-d5 (Surr)	73		27 - 120	09/18/25 04:51	09/30/25 17:01	1
Phenol-d6 (Surr)	25		10 - 120	09/18/25 04:51	09/30/25 17:01	1
p-Terphenyl-d14 (Surr)	69		45 - 120	09/18/25 04:51	09/30/25 17:01	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methylene Chloride	5500	T J N	ug/L		1.31	75-09-2	09/18/25 04:51	10/08/25 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		33 - 139	09/18/25 04:51	10/08/25 16:21	1
2-Fluorobiphenyl (Surr)	78		33 - 126	09/18/25 04:51	10/08/25 16:21	1
2-Fluorophenol (Surr)	49		12 - 120	09/18/25 04:51	10/08/25 16:21	1
Nitrobenzene-d5 (Surr)	82		36 - 120	09/18/25 04:51	10/08/25 16:21	1
Phenol-d6 (Surr)	31		10 - 120	09/18/25 04:51	10/08/25 16:21	1
p-Terphenyl-d14 (Surr)	78		47 - 131	09/18/25 04:51	10/08/25 16:21	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/22/25 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		38 - 134		09/22/25 13:55	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)	<26		26	ug/L		09/20/25 10:16	09/29/25 04:30	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		09/20/25 10:16	09/29/25 04:30	1
C8-C18	<26		26	ug/L		09/20/25 10:16	09/29/25 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	92		60 - 130	09/20/25 10:16	09/29/25 04:30	1

Client Sample ID: TB:Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-2

Date Collected: 09/15/25 12:12

Matrix: Water

Date Received: 09/17/25 09:33

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/22/25 16:37	1

Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: TB:Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-2

Date Collected: 09/15/25 12:12

Matrix: Water

Date Received: 09/17/25 09:33

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		38 - 134		09/22/25 16:37	1

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-3

Date Collected: 09/15/25 13:03

Matrix: Water

Date Received: 09/17/25 09:33

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
4,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
4,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
4,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Acenaphthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Acenaphthylene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Acetochlor	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Alachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
alpha-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
alpha-Chlordane	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Anthracene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:11	1
Atrazine	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Benz(a)anthracene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:11	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:11	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:11	1
beta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 13:11	1
Bromacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Butachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Butylbenzylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:11	1
Chlorobenzilate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Chloroneb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Chlorpyrifos	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Chrysene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 13:11	1
delta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 13:11	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Dieldrin	0.066		0.0097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Diethylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:11	1
Dimethylphthalate	<0.48		0.48	ug/L		09/18/25 08:30	09/19/25 13:11	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/18/25 08:30	09/19/25 13:11	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1

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Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-3

Date Collected: 09/15/25 13:03

Matrix: Water

Date Received: 09/17/25 09:33

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Endrin	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Endrin aldehyde	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
EPTC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Fluoranthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Fluorene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
gamma-Chlordane	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Heptachlor	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Heptachlor epoxide (isomer B)	0.014		0.0097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Hexachlorobenzene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Isophorone	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Lindane	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Malathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Methoxychlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Metolachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Molinate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Naphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Parathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Phenanthrene	<0.039		0.039	ug/L		09/18/25 08:30	09/19/25 13:11	1
Propachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Pyrene	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Simazine	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Terbacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Terbutylazine	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Thiobencarb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/18/25 08:30	09/19/25 13:11	1
trans-Nonachlor	<0.048		0.048	ug/L		09/18/25 08:30	09/19/25 13:11	1
Trifluralin	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 13:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	09/18/25 08:30	09/19/25 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	09/18/25 08:30	09/19/25 13:11	1
Perylene-d12	95		70 - 130	09/18/25 08:30	09/19/25 13:11	1
Triphenylphosphate	109		70 - 130	09/18/25 08:30	09/19/25 13:11	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		09/18/25 04:51	09/24/25 03:05	1
2-Methylnaphthalene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Acenaphthene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Acenaphthylene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Benzo[a]anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1

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Client Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-3

Date Collected: 09/15/25 13:03

Matrix: Water

Date Received: 09/17/25 09:33

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Chrysene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Fluoranthene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Fluorene	<0.19	*	0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Naphthalene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Phenanthrene	<0.19		0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1
Pyrene	<0.19	*	0.19	ug/L		09/18/25 04:51	09/24/25 03:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		28 - 127	09/18/25 04:51	09/24/25 03:05	1
2-Fluorobiphenyl (Surr)	80		31 - 120	09/18/25 04:51	09/24/25 03:05	1
2-Fluorophenol (Surr)	49		17 - 120	09/18/25 04:51	09/24/25 03:05	1
Nitrobenzene-d5 (Surr)	81		27 - 120	09/18/25 04:51	09/24/25 03:05	1
Phenol-d6 (Surr)	29		10 - 120	09/18/25 04:51	09/24/25 03:05	1
p-Terphenyl-d14 (Surr)	82		45 - 120	09/18/25 04:51	09/24/25 03:05	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
Tentatively Identified Compound	None		ug/L			N/A	09/18/25 04:51	10/08/25 02:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		33 - 139	09/18/25 04:51	10/08/25 02:36	1
2-Fluorobiphenyl (Surr)	84		33 - 126	09/18/25 04:51	10/08/25 02:36	1
2-Fluorophenol (Surr)	46		12 - 120	09/18/25 04:51	10/08/25 02:36	1
Nitrobenzene-d5 (Surr)	87		36 - 120	09/18/25 04:51	10/08/25 02:36	1
Phenol-d6 (Surr)	27		10 - 120	09/18/25 04:51	10/08/25 02:36	1
p-Terphenyl-d14 (Surr)	88		47 - 131	09/18/25 04:51	10/08/25 02:36	1

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/22/25 14:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		38 - 134		09/22/25 14:15	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		09/20/25 10:16	09/29/25 04:51	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		09/20/25 10:16	09/29/25 04:51	1
C8-C18	<27		27	ug/L		09/20/25 10:16	09/29/25 04:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	81		60 - 130	09/20/25 10:16	09/29/25 04:51	1

Client Sample Results

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: TB: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-4

Date Collected: 09/15/25 13:03

Matrix: Water

Date Received: 09/17/25 09:33

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/22/25 16:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134				09/22/25 16:57	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: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-171890-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.015		ug/L	0.2	0.0097	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	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-171890-3

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	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.014		ug/L	0.2	0.0097	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	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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)
380-170203-AO-1-A MSD	Matrix Spike Duplicate	100	100	111
380-170203-AP-1-A MS	Matrix Spike	99	100	113
380-171890-1	Ka'amilo Wells Pump 1	98	95	115
380-171890-3	Ka'amilo Wells Pump 2	97	95	109
LCS 380-174877/20-A	Lab Control Sample	100	96	113
MB 380-174877/18-A	Method Blank	99	88	112
MRL 380-174877/19-A	Lab Control Sample	97	85	110

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)
380-171890-1	Ka'amilo Wells Pump 1	71	78	49	82	31	78
380-171890-3	Ka'amilo Wells Pump 2	81	84	46	87	27	88
MB 570-627171/1-A	Method Blank	67	75	48	77	28	80

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

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)
380-171890-1	Ka'amilo Wells Pump 1	61	65	44	73	25	69
380-171890-3	Ka'amilo Wells Pump 2	89	80	49	81	29	82
380-171895-A-1-A MS	Matrix Spike	79	74	54	65	36	76
380-171895-A-1-B MSD	Matrix Spike Duplicate	86	80	61	70	42	83
LCS 570-627171/2-A	Lab Control Sample	66	60	48	57	34	64
LCSD 570-627171/3-A	Lab Control Sample Dup	71	68	54	60	38	72
MB 570-627171/1-A	Method Blank	85	71	53	80	34	78

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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)
380-171890-1	Ka'amilo Wells Pump 1	92
380-171890-2	TB:Ka'amilo Wells Pump 1	96
380-171890-3	Ka'amilo Wells Pump 2	92
380-171890-4	TB: Ka'amilo Wells Pump 2	97
380-171895-C-1 MS	Matrix Spike	97
380-171895-C-1 MSD	Matrix Spike Duplicate	95
LCS 570-628809/4	Lab Control Sample	94
LCSD 570-628809/5	Lab Control Sample Dup	91
MB 570-628809/6	Method Blank	97
MRL 570-628809/3	Lab Control Sample	88

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)
380-171890-1	Ka'amilo Wells Pump 1	92
380-171890-3	Ka'amilo Wells Pump 2	81
380-171895-B-1-A MS	Matrix Spike	96
380-171895-B-1-B MSD	Matrix Spike Duplicate	94
LCS 570-628483/2-A	Lab Control Sample	96
LCSD 570-628483/3-A	Lab Control Sample Dup	94
MB 570-628483/1-A	Method Blank	88
MRL 570-628483/4-A	Lab Control Sample	82

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 380-174877/18-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 174877

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
4,4'-DDD	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
4,4'-DDE	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
4,4'-DDT	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Acenaphthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Acenaphthylene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Acetochlor	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Alachlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
alpha-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
alpha-Chlordane	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Anthracene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 12:30	1
Atrazine	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 12:30	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 12:30	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 12:30	1
beta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 12:30	1
Bromacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Butachlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/18/25 08:30	09/19/25 12:30	1
Chlorobenzilate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Chloroneb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Chlorpyrifos	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Chrysene	<0.019		0.019	ug/L		09/18/25 08:30	09/19/25 12:30	1
delta-BHC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/18/25 08:30	09/19/25 12:30	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Dieldrin	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Diethylphthalate	<0.49		0.49	ug/L		09/18/25 08:30	09/19/25 12:30	1
Dimethylphthalate	<0.49		0.49	ug/L		09/18/25 08:30	09/19/25 12:30	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/18/25 08:30	09/19/25 12:30	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Endrin	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Endrin aldehyde	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
EPTC	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1

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QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 380-174877/18-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 174877

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Fluorene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
gamma-Chlordane	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Heptachlor	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Isophorone	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Lindane	<0.0097		0.0097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Malathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Methoxychlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Metolachlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Molinate	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Naphthalene	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Parathion	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Phenanthrene	<0.039		0.039	ug/L		09/18/25 08:30	09/19/25 12:30	1
Propachlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Pyrene	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Simazine	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Terbacil	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Terbutylazine	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Thiobencarb	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/18/25 08:30	09/19/25 12:30	1
trans-Nonachlor	<0.049		0.049	ug/L		09/18/25 08:30	09/19/25 12:30	1
Trifluralin	<0.097		0.097	ug/L		09/18/25 08:30	09/19/25 12:30	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Unknown</i>	0.616	T J	ug/L		2.52	N/A	09/18/25 08:30	09/19/25 12:30	1
<i>Decane</i>	1.99	T J N	ug/L		2.77	124-18-5	09/18/25 08:30	09/19/25 12:30	1
<i>Hexadecanamide</i>	0.504	T J N	ug/L		7.03	629-54-9	09/18/25 08:30	09/19/25 12:30	1
<i>9-Octadecenamide, (Z)-</i>	6.18	T J N	ug/L		7.89	301-02-0	09/18/25 08:30	09/19/25 12:30	1
<i>13-Docosenamide, (Z)-</i>	1.47	T J N	ug/L		10.42	112-84-5	09/18/25 08:30	09/19/25 12:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	09/18/25 08:30	09/19/25 12:30	1
Perylene-d12	88		70 - 130	09/18/25 08:30	09/19/25 12:30	1
Triphenylphosphate	112		70 - 130	09/18/25 08:30	09/19/25 12:30	1

Lab Sample ID: LCS 380-174877/20-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.95	1.89		ug/L		97	70 - 130
2,4'-DDD	1.95	1.99		ug/L		102	70 - 130
2,4'-DDE	1.95	2.09		ug/L		107	70 - 130

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QC Sample Results

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 380-174877/20-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDT	1.95	1.92		ug/L		98	70 - 130
2,4-Dinitrotoluene	1.95	1.87		ug/L		96	70 - 130
2,6-Dinitrotoluene	1.95	1.93		ug/L		99	70 - 130
2-Methylnaphthalene	1.95	1.90		ug/L		98	70 - 130
4,4'-DDD	1.95	2.04		ug/L		105	70 - 130
4,4'-DDE	1.95	1.99		ug/L		102	70 - 130
4,4'-DDT	1.95	2.00		ug/L		103	70 - 130
Acenaphthene	1.95	1.93		ug/L		99	70 - 130
Acenaphthylene	1.95	1.85		ug/L		95	70 - 130
Acetochlor	1.95	2.05		ug/L		105	70 - 130
Alachlor	1.95	2.18		ug/L		112	70 - 130
alpha-BHC	1.95	2.00		ug/L		103	70 - 130
alpha-Chlordane	1.95	2.04		ug/L		104	70 - 130
Anthracene	1.95	1.83		ug/L		94	70 - 130
Atrazine	1.95	2.08		ug/L		107	70 - 130
Benz(a)anthracene	1.95	2.10		ug/L		108	70 - 130
Benzo[a]pyrene	1.95	2.12		ug/L		109	70 - 130
Benzo[b]fluoranthene	1.95	2.10		ug/L		107	70 - 130
Benzo[g,h,i]perylene	1.95	2.08		ug/L		107	70 - 130
Benzo[k]fluoranthene	1.95	1.98		ug/L		101	70 - 130
beta-BHC	1.95	2.06		ug/L		105	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.08		ug/L		106	70 - 130
Bromacil	1.95	2.09		ug/L		107	70 - 130
Butachlor	1.95	2.11		ug/L		108	70 - 130
Butylbenzylphthalate	1.95	2.44		ug/L		125	70 - 130
Chlorobenzilate	1.95	2.14		ug/L		110	70 - 130
Chloroneb	1.95	2.04		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.01		ug/L		103	70 - 130
Chlorpyrifos	1.95	2.01		ug/L		103	70 - 130
Chrysene	1.95	1.91		ug/L		98	70 - 130
delta-BHC	1.95	2.00		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.27		ug/L		117	70 - 130
Dibenz(a,h)anthracene	1.95	2.07		ug/L		106	70 - 130
Diclorvos (DDVP)	1.95	2.11		ug/L		108	70 - 130
Dieldrin	1.95	2.08		ug/L		107	70 - 130
Diethylphthalate	1.95	2.15		ug/L		110	70 - 130
Dimethylphthalate	1.95	2.12		ug/L		109	70 - 130
Di-n-butyl phthalate	3.90	4.46		ug/L		114	70 - 130
Di-n-octyl phthalate	1.95	1.99		ug/L		102	70 - 130
Endosulfan I (Alpha)	1.95	2.04		ug/L		105	70 - 130
Endosulfan II (Beta)	1.95	2.08		ug/L		107	70 - 130
Endosulfan sulfate	1.95	2.08		ug/L		107	70 - 130
Endrin	1.95	2.14		ug/L		110	70 - 130
Endrin aldehyde	1.95	2.04		ug/L		105	60 - 130
EPTC	1.95	2.12		ug/L		109	70 - 130
Fluoranthene	1.95	2.02		ug/L		103	70 - 130
Fluorene	1.95	2.05		ug/L		105	70 - 130
gamma-Chlordane	1.95	2.00		ug/L		102	70 - 130
Heptachlor	1.95	2.09		ug/L		107	70 - 130

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QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 380-174877/20-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide (isomer B)	1.95	2.17		ug/L		111	70 - 130
Hexachlorobenzene	1.95	1.87		ug/L		96	70 - 130
Hexachlorocyclopentadiene	1.95	1.85		ug/L		95	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.04		ug/L		104	70 - 130
Isophorone	1.95	2.10		ug/L		108	70 - 130
Lindane	1.95	2.16		ug/L		111	70 - 130
Malathion	1.95	2.05		ug/L		105	70 - 130
Methoxychlor	1.95	2.04		ug/L		104	70 - 130
Metolachlor	1.95	1.99		ug/L		102	70 - 130
Molinate	1.95	2.17		ug/L		111	70 - 130
Naphthalene	1.95	1.95		ug/L		100	70 - 130
Parathion	1.95	2.04		ug/L		105	70 - 130
Pendimethalin (Penoxaline)	1.95	1.93		ug/L		99	70 - 130
Phenanthrene	1.95	1.97		ug/L		101	70 - 130
Propachlor	1.95	2.18		ug/L		112	70 - 130
Pyrene	1.95	1.96		ug/L		100	70 - 130
Simazine	1.95	2.06		ug/L		106	70 - 130
Terbacil	1.95	2.15		ug/L		110	70 - 130
Terbutylazine	1.95	2.04		ug/L		105	70 - 130
Thiobencarb	1.95	2.01		ug/L		103	70 - 130
trans-Nonachlor	1.95	2.04		ug/L		105	70 - 130
Trifluralin	1.95	1.91		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	113		70 - 130

Lab Sample ID: MRL 380-174877/19-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0972	0.103		ug/L		106	50 - 150
2,4'-DDD	0.0972	0.0944	J	ug/L		97	50 - 150
2,4'-DDE	0.0972	0.0953	J	ug/L		98	50 - 150
2,4'-DDT	0.0972	0.103		ug/L		106	50 - 150
2,4-Dinitrotoluene	0.0972	0.104		ug/L		106	50 - 150
2,6-Dinitrotoluene	0.0972	0.132		ug/L		135	50 - 150
2-Methylnaphthalene	0.0972	0.0984		ug/L		101	50 - 150
4,4'-DDD	0.0972	0.108		ug/L		111	50 - 150
4,4'-DDE	0.0972	0.105		ug/L		108	50 - 150
4,4'-DDT	0.0972	0.115		ug/L		118	50 - 150
Acenaphthene	0.0972	0.0887	J	ug/L		91	50 - 150
Acenaphthylene	0.0972	0.0927	J	ug/L		95	50 - 150
Acetochlor	0.0972	0.107		ug/L		110	50 - 150
Alachlor	0.0486	0.0515		ug/L		106	50 - 150
alpha-BHC	0.0972	0.100		ug/L		103	50 - 150

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MRL 380-174877/19-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
alpha-Chlordane	0.0243	0.0347	J	ug/L		143	50 - 150
Anthracene	0.0194	0.0211		ug/L		108	50 - 150
Atrazine	0.0486	0.0684		ug/L		141	50 - 150
Benz(a)anthracene	0.0486	0.0512		ug/L		105	50 - 150
Benzo[a]pyrene	0.0194	0.0200		ug/L		103	50 - 150
Benzo[b]fluoranthene	0.0194	0.0237		ug/L		122	50 - 150
Benzo[g,h,i]perylene	0.0486	0.0566		ug/L		116	50 - 150
Benzo[k]fluoranthene	0.0194	0.0239		ug/L		123	50 - 150
beta-BHC	0.0972	0.101		ug/L		104	50 - 150
Bis(2-ethylhexyl) phthalate	0.583	0.606		ug/L		104	50 - 150
Bromacil	0.0972	0.122		ug/L		125	50 - 150
Butachlor	0.0486	0.0687		ug/L		141	50 - 150
Butylbenzylphthalate	0.486	0.654		ug/L		135	50 - 150
Chlorobenzilate	0.0972	0.104		ug/L		107	50 - 150
Chloroneb	0.0972	0.0935	J	ug/L		96	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0972	0.102		ug/L		105	50 - 150
Chlorpyrifos	0.0486	0.0502		ug/L		103	50 - 150
Chrysene	0.0194	0.0174	J	ug/L		90	50 - 150
delta-BHC	0.0972	0.0934	J	ug/L		96	50 - 150
Di(2-ethylhexyl)adipate	0.583	0.686		ug/L		118	50 - 150
Dibenz(a,h)anthracene	0.0486	0.0601		ug/L		124	50 - 150
Diclorvos (DDVP)	0.0486	0.0570		ug/L		117	50 - 150
Dieldrin	0.00972	0.00955	J	ug/L		98	50 - 150
Diethylphthalate	0.486	0.507		ug/L		104	50 - 150
Dimethylphthalate	0.486	0.496		ug/L		102	50 - 150
Di-n-butyl phthalate	0.486	0.626	J	ug/L		129	49 - 243
Di-n-octyl phthalate	0.0972	0.105		ug/L		108	50 - 150
Endosulfan I (Alpha)	0.0972	0.0835	J	ug/L		86	50 - 150
Endosulfan II (Beta)	0.0972	0.0960	J	ug/L		99	50 - 150
Endosulfan sulfate	0.0972	0.108		ug/L		111	50 - 150
Endrin	0.00972	0.0113		ug/L		117	50 - 150
Endrin aldehyde	0.0972	0.113		ug/L		117	50 - 150
EPTC	0.0972	0.0890	J	ug/L		92	50 - 150
Fluoranthene	0.0972	0.0999		ug/L		103	50 - 150
Fluorene	0.0486	0.0501		ug/L		103	50 - 150
gamma-Chlordane	0.0243	0.0321	J	ug/L		132	50 - 150
Heptachlor	0.00972	0.0112		ug/L		115	50 - 150
Heptachlor epoxide (isomer B)	0.00972	0.0124		ug/L		128	50 - 150
Hexachlorobenzene	0.0486	0.0418	J	ug/L		86	50 - 150
Hexachlorocyclopentadiene	0.0486	0.0456	J	ug/L		94	50 - 150
Indeno[1,2,3-cd]pyrene	0.0486	0.0698		ug/L		144	50 - 150
Isophorone	0.0972	0.108		ug/L		111	50 - 150
Lindane	0.00972	0.0101		ug/L		104	50 - 150
Malathion	0.0972	0.106		ug/L		109	50 - 150
Methoxychlor	0.0486	0.0682		ug/L		140	50 - 150
Metolachlor	0.0486	0.0578		ug/L		119	50 - 150
Molinate	0.0972	0.0987		ug/L		102	50 - 150
Naphthalene	0.0972	0.0935	J	ug/L		96	50 - 150
Parathion	0.0972	0.0970		ug/L		100	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MRL 380-174877/19-A
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Pendimethalin (Penoxaline)	0.0972	0.0991		ug/L		102	50 - 150
Phenanthrene	0.0389	0.0388	J	ug/L		100	50 - 150
Propachlor	0.0486	0.0517		ug/L		106	50 - 150
Pyrene	0.0486	0.0522		ug/L		107	50 - 150
Simazine	0.0486	0.0609		ug/L		125	50 - 150
Terbacil	0.0972	0.113		ug/L		116	50 - 150
Terbutylazine	0.0972	0.109		ug/L		112	50 - 150
Thiobencarb	0.0972	0.106		ug/L		109	50 - 150
trans-Nonachlor	0.0243	0.0342	J	ug/L		141	50 - 150
Trifluralin	0.0972	0.0963	J	ug/L		99	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	85		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: 380-170203-AO-1-A MSD
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.098		1.97	1.92		ug/L		97	70 - 130	1	20
2,4'-DDD	<0.098		1.97	2.01		ug/L		102	70 - 130	1	20
2,4'-DDE	<0.098		1.97	2.09		ug/L		106	70 - 130	2	20
2,4'-DDT	<0.098		1.97	1.93		ug/L		98	70 - 130	0	20
2,4-Dinitrotoluene	<0.098		1.97	2.00		ug/L		101	70 - 130	5	20
2,6-Dinitrotoluene	<0.098		1.97	1.96		ug/L		99	70 - 130	1	20
2-Methylnaphthalene	<0.098		1.97	1.96		ug/L		99	70 - 130	1	20
4,4'-DDD	<0.098		1.97	2.04		ug/L		103	70 - 130	2	20
4,4'-DDE	<0.098		1.97	2.02		ug/L		103	70 - 130	0	20
4,4'-DDT	<0.098		1.97	2.04		ug/L		103	70 - 130	1	20
Acenaphthene	<0.098		1.97	1.99		ug/L		101	70 - 130	3	20
Acenaphthylene	<0.098		1.97	1.92		ug/L		97	70 - 130	2	20
Acetochlor	<0.098		1.97	2.04		ug/L		103	70 - 130	0	20
Alachlor	<0.049		1.97	2.19		ug/L		111	70 - 130	1	20
alpha-BHC	<0.098		1.97	2.05		ug/L		104	70 - 130	3	20
alpha-Chlordane	<0.049		1.97	2.03		ug/L		103	70 - 130	2	20
Anthracene	<0.020		1.97	1.73		ug/L		87	70 - 130	1	20
Atrazine	<0.049		1.97	2.14		ug/L		109	70 - 130	2	20
Benz(a)anthracene	<0.049		1.97	2.09		ug/L		106	70 - 130	2	20
Benzo[a]pyrene	<0.020		1.97	2.18		ug/L		111	70 - 130	0	20
Benzo[b]fluoranthene	<0.020		1.97	2.21		ug/L		112	70 - 130	1	20
Benzo[g,h,i]perylene	<0.049		1.97	2.14		ug/L		109	70 - 130	0	20
Benzo[k]fluoranthene	<0.020		1.97	2.00		ug/L		101	70 - 130	1	20
beta-BHC	<0.098		1.97	2.08		ug/L		106	70 - 130	0	20
Bis(2-ethylhexyl) phthalate	<0.59		1.97	2.09		ug/L		106	70 - 130	3	20
Bromacil	<0.098		1.97	2.09		ug/L		106	70 - 130	1	20
Butachlor	<0.049		1.97	2.07		ug/L		105	70 - 130	3	20

QC Sample Results

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-170203-AO-1-A MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 175147

Prep Batch: 174877

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Butylbenzylphthalate	<0.49		1.97	2.33		ug/L		118	70 - 130	3	20
Chlorobenzilate	<0.098		1.97	2.15		ug/L		109	70 - 130	2	20
Chloroneb	<0.098		1.97	2.06		ug/L		104	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	<0.098		1.97	2.03		ug/L		103	70 - 130	1	20
Chlorpyrifos	<0.049		1.97	2.01		ug/L		102	70 - 130	3	20
Chrysene	<0.020		1.97	1.97		ug/L		100	70 - 130	0	20
delta-BHC	<0.098		1.97	1.98		ug/L		100	70 - 130	2	20
Di(2-ethylhexyl)adipate	<0.59		1.97	2.28		ug/L		116	70 - 130	1	20
Dibenz(a,h)anthracene	<0.049		1.97	2.13		ug/L		108	70 - 130	0	20
Diclorvos (DDVP)	<0.049		1.97	2.15		ug/L		109	70 - 130	3	20
Dieldrin	<0.0098		1.97	2.11		ug/L		107	70 - 130	3	20
Diethylphthalate	<0.49		1.97	2.17		ug/L		110	70 - 130	2	20
Dimethylphthalate	<0.49		1.97	2.17		ug/L		110	70 - 130	4	20
Di-n-butyl phthalate	<0.98		3.94	4.51		ug/L		114	70 - 130	2	20
Di-n-octyl phthalate	<0.098		1.97	2.02		ug/L		102	70 - 130	5	20
Endosulfan I (Alpha)	<0.098		1.97	2.00		ug/L		101	70 - 130	5	20
Endosulfan II (Beta)	<0.098		1.97	2.09		ug/L		106	70 - 130	2	20
Endosulfan sulfate	<0.098		1.97	2.08		ug/L		106	70 - 130	0	20
Endrin	<0.0098		1.97	2.19		ug/L		111	70 - 130	1	20
Endrin aldehyde	<0.098		1.97	1.76		ug/L		89	60 - 130	7	20
EPTC	<0.098		1.97	2.16		ug/L		109	70 - 130	2	20
Fluoranthene	<0.098		1.97	2.04		ug/L		103	70 - 130	1	20
Fluorene	<0.049		1.97	2.13		ug/L		108	70 - 130	2	20
gamma-Chlordane	<0.049		1.97	2.04		ug/L		103	70 - 130	2	20
Heptachlor	<0.0098		1.97	2.14		ug/L		109	70 - 130	2	20
Heptachlor epoxide (isomer B)	<0.0098		1.97	2.22		ug/L		112	70 - 130	0	20
Hexachlorobenzene	<0.049		1.97	1.99		ug/L		101	70 - 130	1	20
Hexachlorocyclopentadiene	<0.049		1.97	1.93		ug/L		98	70 - 130	3	20
Indeno[1,2,3-cd]pyrene	<0.049		1.97	2.12		ug/L		107	70 - 130	0	20
Isophorone	<0.098		1.97	2.15		ug/L		109	70 - 130	3	20
Lindane	<0.0098		1.97	2.21		ug/L		112	70 - 130	3	20
Malathion	<0.098		1.97	2.03		ug/L		103	70 - 130	1	20
Methoxychlor	<0.049		1.97	2.13		ug/L		108	70 - 130	1	20
Metolachlor	<0.049		1.97	2.01		ug/L		102	70 - 130	0	20
Molinate	<0.098		1.97	2.17		ug/L		110	70 - 130	1	20
Naphthalene	<0.098		1.97	1.98		ug/L		100	70 - 130	2	20
Parathion	<0.098		1.97	2.08		ug/L		105	70 - 130	1	20
Pendimethalin (Penoxaline)	<0.098		1.97	2.03		ug/L		103	70 - 130	1	20
Phenanthrene	<0.039		1.97	1.95		ug/L		99	70 - 130	0	20
Propachlor	<0.049		1.97	2.24		ug/L		114	70 - 130	2	20
Pyrene	<0.049		1.97	1.99		ug/L		100	70 - 130	1	20
Simazine	<0.049		1.97	2.11		ug/L		107	70 - 130	2	20
Terbacil	<0.098		1.97	2.11		ug/L		107	70 - 130	1	20
Terbutylazine	<0.098		1.97	2.13		ug/L		108	70 - 130	3	20
Thiobencarb	<0.098		1.97	2.02		ug/L		103	70 - 130	2	20
trans-Nonachlor	<0.049		1.97	2.02		ug/L		102	70 - 130	3	20
Trifluralin	<0.098		1.97	2.02		ug/L		102	70 - 130	3	20

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-170203-AO-1-A MSD
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 174877

<i>Surrogate</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	111		70 - 130

Lab Sample ID: 380-170203-AP-1-A MS
Matrix: Water
Analysis Batch: 175147

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 174877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.96	1.90		ug/L		96	70 - 130
2,4'-DDD	<0.098		1.96	2.02		ug/L		103	70 - 130
2,4'-DDE	<0.098		1.96	2.13		ug/L		109	70 - 130
2,4'-DDT	<0.098		1.96	1.92		ug/L		98	70 - 130
2,4-Dinitrotoluene	<0.098		1.96	1.90		ug/L		97	70 - 130
2,6-Dinitrotoluene	<0.098		1.96	1.93		ug/L		99	70 - 130
2-Methylnaphthalene	<0.098		1.96	1.93		ug/L		98	70 - 130
4,4'-DDD	<0.098		1.96	2.07		ug/L		106	70 - 130
4,4'-DDE	<0.098		1.96	2.02		ug/L		103	70 - 130
4,4'-DDT	<0.098		1.96	2.03		ug/L		104	70 - 130
Acenaphthene	<0.098		1.96	1.92		ug/L		98	70 - 130
Acenaphthylene	<0.098		1.96	1.88		ug/L		96	70 - 130
Acetochlor	<0.098		1.96	2.04		ug/L		104	70 - 130
Alachlor	<0.049		1.96	2.21		ug/L		113	70 - 130
alpha-BHC	<0.098		1.96	1.99		ug/L		102	70 - 130
alpha-Chlordane	<0.049		1.96	2.07		ug/L		106	70 - 130
Anthracene	<0.020		1.96	1.74		ug/L		89	70 - 130
Atrazine	<0.049		1.96	2.10		ug/L		107	70 - 130
Benz(a)anthracene	<0.049		1.96	2.13		ug/L		109	70 - 130
Benzo[a]pyrene	<0.020		1.96	2.19		ug/L		112	70 - 130
Benzo[b]fluoranthene	<0.020		1.96	2.18		ug/L		111	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	2.14		ug/L		109	70 - 130
Benzo[k]fluoranthene	<0.020		1.96	2.02		ug/L		103	70 - 130
beta-BHC	<0.098		1.96	2.08		ug/L		106	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.96	2.04		ug/L		104	70 - 130
Bromacil	<0.098		1.96	2.10		ug/L		107	70 - 130
Butachlor	<0.049		1.96	2.13		ug/L		109	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.39		ug/L		122	70 - 130
Chlorobenzilate	<0.098		1.96	2.18		ug/L		111	70 - 130
Chloroneb	<0.098		1.96	2.04		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.96	2.05		ug/L		104	70 - 130
Chlorpyrifos	<0.049		1.96	2.08		ug/L		106	70 - 130
Chrysene	<0.020		1.96	1.97		ug/L		100	70 - 130
delta-BHC	<0.098		1.96	2.01		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.96	2.26		ug/L		115	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	2.13		ug/L		109	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.09		ug/L		107	70 - 130
Dieldrin	<0.0098		1.96	2.18		ug/L		111	70 - 130
Diethylphthalate	<0.49		1.96	2.12		ug/L		108	70 - 130

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 570-627171/1-A
Matrix: Water
Analysis Batch: 637083

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627171

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>MB MB</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>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB</i> <i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	67		33 - 139				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	75		33 - 126				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	48		12 - 120				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	77		36 - 120				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	28		10 - 120				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	80		47 - 131				<i>09/18/25 04:51</i>	<i>10/08/25 02:12</i>	<i>1</i>

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

Lab Sample ID: MB 570-627171/1-A
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627171

<i>Analyte</i>	<i>Result</i>	<i>MB MB</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>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>2-Methylnaphthalene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Acenaphthene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Acenaphthylene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Anthracene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Benzo[a]anthracene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Benzo[a]pyrene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Benzo[b]fluoranthene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Benzo[g,h,i]perylene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Benzo[k]fluoranthene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Chrysene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Dibenz(a,h)anthracene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Fluoranthene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Fluorene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Indeno[1,2,3-cd]pyrene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Naphthalene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Phenanthrene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Pyrene</i>	<0.20		0.20	ug/L		<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>	
<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB</i> <i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	85		28 - 127				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	71		31 - 120				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	53		17 - 120				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	80		27 - 120				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	34		10 - 120				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	78		45 - 120				<i>09/18/25 04:51</i>	<i>09/23/25 22:58</i>	<i>1</i>

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 570-627171/2-A
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	11.9		ug/L		60	47 - 120
2-Methylnaphthalene	20.0	11.7		ug/L		59	43 - 120
Acenaphthene	20.0	13.2		ug/L		66	60 - 132
Acenaphthylene	20.0	13.3		ug/L		67	54 - 126
Anthracene	20.0	13.5		ug/L		68	43 - 120
Benzo[a]anthracene	20.0	13.0		ug/L		65	42 - 133
Benzo[a]pyrene	20.0	13.2		ug/L		66	32 - 148
Benzo[b]fluoranthene	20.0	13.5		ug/L		67	42 - 140
Benzo[g,h,i]perylene	20.0	14.1		ug/L		70	1 - 195
Benzo[k]fluoranthene	20.0	13.9		ug/L		70	25 - 146
Chrysene	20.0	13.9		ug/L		69	44 - 140
Dibenz(a,h)anthracene	20.0	13.7		ug/L		69	1 - 200
Fluoranthene	20.0	14.2		ug/L		71	43 - 121
Fluorene	20.0	13.7	*-	ug/L		69	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	12.9		ug/L		64	1 - 151
Naphthalene	20.0	11.6		ug/L		58	36 - 120
Phenanthrene	20.0	13.6		ug/L		68	65 - 120
Pyrene	20.0	13.3	*-	ug/L		67	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	66		28 - 127
2-Fluorobiphenyl (Surr)	60		31 - 120
2-Fluorophenol (Surr)	48		17 - 120
Nitrobenzene-d5 (Surr)	57		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	64		45 - 120

Lab Sample ID: LCSD 570-627171/3-A
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 627171

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	13.2		ug/L		66	47 - 120	10	20
2-Methylnaphthalene	20.0	13.0		ug/L		65	43 - 120	11	20
Acenaphthene	20.0	14.9		ug/L		75	60 - 132	13	29
Acenaphthylene	20.0	14.9		ug/L		75	54 - 126	11	45
Anthracene	20.0	15.0		ug/L		75	43 - 120	10	40
Benzo[a]anthracene	20.0	14.6		ug/L		73	42 - 133	12	32
Benzo[a]pyrene	20.0	14.7		ug/L		73	32 - 148	10	43
Benzo[b]fluoranthene	20.0	14.9		ug/L		74	42 - 140	10	43
Benzo[g,h,i]perylene	20.0	15.8		ug/L		79	1 - 195	11	61
Benzo[k]fluoranthene	20.0	15.7		ug/L		78	25 - 146	12	38
Chrysene	20.0	15.6		ug/L		78	44 - 140	12	53
Dibenz(a,h)anthracene	20.0	15.8		ug/L		79	1 - 200	14	75
Fluoranthene	20.0	15.7		ug/L		78	43 - 121	10	40
Fluorene	20.0	15.3		ug/L		76	70 - 120	11	23
Indeno[1,2,3-cd]pyrene	20.0	14.4		ug/L		72	1 - 151	11	60
Naphthalene	20.0	12.6		ug/L		63	36 - 120	8	39

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCSD 570-627171/3-A
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 627171

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	15.2		ug/L		76	65 - 120	11	24
Pyrene	20.0	15.0		ug/L		75	70 - 120	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	71		28 - 127
2-Fluorobiphenyl (Surr)	68		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	60		27 - 120
Phenol-d6 (Surr)	38		10 - 120
p-Terphenyl-d14 (Surr)	72		45 - 120

Lab Sample ID: 380-171895-A-1-A MS
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 627171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.1	13.6		ug/L		71	36 - 120
2-Methylnaphthalene	<0.19		19.1	13.5		ug/L		71	32 - 124
Acenaphthene	<0.19		19.1	15.4		ug/L		81	47 - 145
Acenaphthylene	<0.19		19.1	15.4		ug/L		81	33 - 145
Anthracene	<0.19		19.1	15.6		ug/L		82	27 - 133
Benzo[a]anthracene	<0.19		19.1	15.1		ug/L		79	33 - 143
Benzo[a]pyrene	<0.19		19.1	15.1		ug/L		79	17 - 163
Benzo[b]fluoranthene	<0.19		19.1	15.2		ug/L		79	24 - 159
Benzo[g,h,i]perylene	<0.19		19.1	15.8		ug/L		83	1 - 219
Benzo[k]fluoranthene	<0.19		19.1	16.1		ug/L		84	11 - 162
Chrysene	<0.19		19.1	15.9		ug/L		83	17 - 168
Dibenz(a,h)anthracene	<0.19		19.1	15.7		ug/L		82	1 - 227
Fluoranthene	<0.19		19.1	16.4		ug/L		86	26 - 137
Fluorene	<0.19	*-	19.1	16.1		ug/L		84	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.1	14.6		ug/L		76	1 - 171
Naphthalene	<0.19		19.1	13.6		ug/L		71	21 - 133
Phenanthrene	<0.19		19.1	15.8		ug/L		83	54 - 120
Pyrene	<0.19	*-	19.1	15.7		ug/L		82	52 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	79		28 - 127
2-Fluorobiphenyl (Surr)	74		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	65		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	76		45 - 120

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-171895-A-1-B MSD
Matrix: Water
Analysis Batch: 630004

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 627171

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.2	14.8		ug/L		77	36 - 120	8	30
2-Methylnaphthalene	<0.19		19.2	14.4		ug/L		75	32 - 124	7	30
Acenaphthene	<0.19		19.2	16.7		ug/L		87	47 - 145	8	48
Acenaphthylene	<0.19		19.2	16.7		ug/L		87	33 - 145	8	74
Anthracene	<0.19		19.2	17.1		ug/L		89	27 - 133	9	66
Benzo[a]anthracene	<0.19		19.2	16.5		ug/L		86	33 - 143	9	53
Benzo[a]pyrene	<0.19		19.2	16.3		ug/L		85	17 - 163	8	72
Benzo[b]fluoranthene	<0.19		19.2	16.8		ug/L		88	24 - 159	10	71
Benzo[g,h,i]perylene	<0.19		19.2	17.5		ug/L		91	1 - 219	10	97
Benzo[k]fluoranthene	<0.19		19.2	17.1		ug/L		89	11 - 162	6	63
Chrysene	<0.19		19.2	17.4		ug/L		91	17 - 168	9	87
Dibenz(a,h)anthracene	<0.19		19.2	17.3		ug/L		90	1 - 227	10	126
Fluoranthene	<0.19		19.2	18.1		ug/L		95	26 - 137	10	66
Fluorene	<0.19	*	19.2	17.4		ug/L		91	59 - 121	8	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	16.1		ug/L		84	1 - 171	10	99
Naphthalene	<0.19		19.2	13.9		ug/L		72	21 - 133	2	65
Phenanthrene	<0.19		19.2	17.4		ug/L		91	54 - 120	10	39
Pyrene	<0.19	*	19.2	17.3		ug/L		90	52 - 120	10	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	86		28 - 127
2-Fluorobiphenyl (Surr)	80		31 - 120
2-Fluorophenol (Surr)	61		17 - 120
Nitrobenzene-d5 (Surr)	70		27 - 120
Phenol-d6 (Surr)	42		10 - 120
p-Terphenyl-d14 (Surr)	83		45 - 120

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

Lab Sample ID: MB 570-628809/6
Matrix: Water
Analysis Batch: 628809

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			09/22/25 11:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134		09/22/25 11:06	1

Lab Sample ID: LCS 570-628809/4
Matrix: Water
Analysis Batch: 628809

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 570-628809/4
Matrix: Water
Analysis Batch: 628809

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

	LCS	LCS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	94		38 - 134

Lab Sample ID: LCSD 570-628809/5
Matrix: Water
Analysis Batch: 628809

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

	Spike	LCSD	LCSD							
<i>Analyte</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
Gasoline Range Organics (C4-C13)	400	416		ug/L		104	78 - 120		6	10

	LCSD	LCSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	91		38 - 134

Lab Sample ID: MRL 570-628809/3
Matrix: Water
Analysis Batch: 628809

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

	Spike	MRL	MRL						
<i>Analyte</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limit</i>	<i>RPD</i>
Gasoline Range Organics (C4-C13)	10.0	14.6		ug/L		146	50 - 150		

	MRL	MRL	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	88		38 - 134

Lab Sample ID: 380-171895-C-1 MS
Matrix: Water
Analysis Batch: 628809

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

	Sample	Sample	Spike	MS	MS					
<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limit</i>
Gasoline Range Organics (C4-C13)	<10		400	409		ug/L		102	68 - 122	

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	97		38 - 134

Lab Sample ID: 380-171895-C-1 MSD
Matrix: Water
Analysis Batch: 628809

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

	Sample	Sample	Spike	MSD	MSD					
<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limit</i>
Gasoline Range Organics (C4-C13)	<10		400	418		ug/L		104	68 - 122	2

	MSD	MSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene (Surr)	95		38 - 134

QC Sample Results

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 570-628483/1-A
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628483

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		09/20/25 10:15	09/29/25 01:39	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		09/20/25 10:15	09/29/25 01:39	1
C8-C18	<25		25	ug/L		09/20/25 10:15	09/29/25 01:39	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
<i>n-Octacosane (Surr)</i>	88		60 - 130			09/20/25 10:15	09/29/25 01:39	1

Lab Sample ID: LCS 570-628483/2-A
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628483

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1820		ug/L		114	56 - 127
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	96		60 - 130				

Lab Sample ID: LCSD 570-628483/3-A
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 628483

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
C10-C28	1600	1740		ug/L		109	56 - 127	4	23
Surrogate	LCSD LCSD		Limits			%Rec			
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	94		60 - 130						

Lab Sample ID: MRL 570-628483/4-A
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628483

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0250	0.0228	J	mg/L		91	50 - 150
Surrogate	MRL MRL		Limits			%Rec	
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	82		60 - 130				

Lab Sample ID: 380-171895-B-1-A MS
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 628483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
C10-C28	<26		1640	1910		ug/L		116	70 - 130
Surrogate	MS MS		Limits					%Rec	
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	96		60 - 130						

QC Sample Results

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

Job ID: 380-171890-1
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-171895-B-1-B MSD
Matrix: Water
Analysis Batch: 632398

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 628483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1650	1890		ug/L		115	70 - 130	1	20
Surrogate		MSD %Recovery	MSD Qualifier	Limits							
<i>n-Octacosane (Surr)</i>		94		60 - 130							

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

QC Association Summary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

GC/MS Semi VOA

Prep Batch: 174877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	
MB 380-174877/18-A	Method Blank	Total/NA	Water	525.2	
LCS 380-174877/20-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-174877/19-A	Lab Control Sample	Total/NA	Water	525.2	
380-170203-AO-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	
380-170203-AP-1-A MS	Matrix Spike	Total/NA	Water	525.2	

Analysis Batch: 175147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	174877
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	174877
MB 380-174877/18-A	Method Blank	Total/NA	Water	525.2	174877
LCS 380-174877/20-A	Lab Control Sample	Total/NA	Water	525.2	174877
MRL 380-174877/19-A	Lab Control Sample	Total/NA	Water	525.2	174877
380-170203-AO-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	174877
380-170203-AP-1-A MS	Matrix Spike	Total/NA	Water	525.2	174877

Prep Batch: 627171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	
MB 570-627171/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-627171/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-627171/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-171895-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-171895-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 630004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1 SIM	627171
MB 570-627171/1-A	Method Blank	Total/NA	Water	625.1 SIM	627171
LCS 570-627171/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	627171
LCSD 570-627171/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	627171
380-171895-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	627171
380-171895-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	627171

Analysis Batch: 633087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1 SIM	627171

Analysis Batch: 637083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	627171
MB 570-627171/1-A	Method Blank	Total/NA	Water	625.1	627171

Analysis Batch: 637396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	627171

QC Association Summary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

GC VOA

Analysis Batch: 628809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-171890-2	TB:Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	
380-171890-4	TB: Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	
MB 570-628809/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-628809/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-628809/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-628809/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-171895-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-171895-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 628483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	3510C	
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	3510C	
MB 570-628483/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-628483/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-628483/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-628483/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-171895-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-171895-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 632398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171890-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B	628483
380-171890-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B	628483
MB 570-628483/1-A	Method Blank	Total/NA	Water	8015B	628483
LCS 570-628483/2-A	Lab Control Sample	Total/NA	Water	8015B	628483
LCSD 570-628483/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	628483
MRL 570-628483/4-A	Lab Control Sample	Total/NA	Water	8015B	628483
380-171895-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	628483
380-171895-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	628483

Lab Chronicle

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1
Date Collected: 09/15/25 12:12
Date Received: 09/17/25 09:33

Lab Sample ID: 380-171890-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			174877	KRD3	EA POM	09/18/25 08:30
Total/NA	Analysis	525.2		1	175147	Q8LA	EA POM	09/19/25 13:31
Total/NA	Prep	625.1			627171	H1SH	EET CAL 4	09/18/25 04:51
Total/NA	Analysis	625.1		1	637396	CG	EET CAL 4	10/08/25 16:21
Total/NA	Prep	625.1			627171	H1SH	EET CAL 4	09/18/25 04:51
Total/NA	Analysis	625.1 SIM		1	633087	PQS1	EET CAL 4	09/30/25 17:01
Total/NA	Analysis	8015B GRO LL		1	628809	YD9V	EET CAL 4	09/22/25 13:55
Total/NA	Prep	3510C			628483	TVD6	EET CAL 4	09/20/25 10:16
Total/NA	Analysis	8015B		1	632398	H6FE	EET CAL 4	09/29/25 04:30

Client Sample ID: TB:Ka'amilo Wells Pump 1
Date Collected: 09/15/25 12:12
Date Received: 09/17/25 09:33

Lab Sample ID: 380-171890-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	628809	YD9V	EET CAL 4	09/22/25 16:37

Client Sample ID: Ka'amilo Wells Pump 2
Date Collected: 09/15/25 13:03
Date Received: 09/17/25 09:33

Lab Sample ID: 380-171890-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			174877	KRD3	EA POM	09/18/25 08:30
Total/NA	Analysis	525.2		1	175147	Q8LA	EA POM	09/19/25 13:11
Total/NA	Prep	625.1			627171	H1SH	EET CAL 4	09/18/25 04:51
Total/NA	Analysis	625.1		1	637083	J7WE	EET CAL 4	10/08/25 02:36
Total/NA	Prep	625.1			627171	H1SH	EET CAL 4	09/18/25 04:51
Total/NA	Analysis	625.1 SIM		1	630004	J7WE	EET CAL 4	09/24/25 03:05
Total/NA	Analysis	8015B GRO LL		1	628809	YD9V	EET CAL 4	09/22/25 14:15
Total/NA	Prep	3510C			628483	TVD6	EET CAL 4	09/20/25 10:16
Total/NA	Analysis	8015B		1	632398	H6FE	EET CAL 4	09/29/25 04:51

Client Sample ID: TB: Ka'amilo Wells Pump 2
Date Collected: 09/15/25 13:03
Date Received: 09/17/25 09:33

Lab Sample ID: 380-171890-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	628809	YD9V	EET CAL 4	09/22/25 16:57

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: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Laboratory: Eurofins Eaton Analytical Pomona

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

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Method Summary

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

Job ID: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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: 380-171890-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-171890-1	Ka'amilo Wells Pump 1	Water	09/15/25 12:12	09/17/25 09:33	Hawaii
380-171890-2	TB:Ka'amilo Wells Pump 1	Water	09/15/25 12:12	09/17/25 09:33	Hawaii
380-171890-3	Ka'amilo Wells Pump 2	Water	09/15/25 13:03	09/17/25 09:33	Hawaii
380-171890-4	TB: Ka'amilo Wells Pump 2	Water	09/15/25 13:03	09/17/25 09:33	Hawaii

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Chain of Custody Record



Client Information		Sampler Bailey	Lab PM: Arada, Rachelle	Carrier Tracking No(s): 380-28005-2757 1	COC No.:
Client Contact: Mr Kirk Iwamoto		Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@eurofins.com	State of Origin:	Page: 1 of 1
City & County of Honolulu		PWSID:		Job #:	
Address: 630 South Beretania Street Chemistry Lab Honolulu		Due Date Requested:		Analysis Requested	
City: Honolulu		TAT Requested (days):		533 - All Analytes	
State, Zip: HI, 96843		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		537 1_DW_PREG - 537.1 Full List	
Phone: 808-748-5840 (Tel)		PO #: C20525101 exp 05312023		525.2_PREG - (MOD) 525plus Plus TICs	
Email: kiwamoto@hbws.org		WO #:		8016B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C38/C8-C18	
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		8016B_GRO_LL - (MOD) GRO	
Site: Hawaii		SSOW#:		925.1_925.1 SIM	
Sample Identification		Field Filtered Sample (Yes or No)		Perform MMS/D (Yes or No)	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Matrix (Water, Swab, Onsite, etc)
Ka'amilo Wells Pump 1	15-Sep-2025	1212	G		Water
Ka'amilo Wells Pump 1 (Matrix Spike)					Water
Ka'amilo Wells Pump 1 (Matrix Spike Duplicate)					Water
TB: Ka'amilo Wells Pump 1	15-Sep-2025	1212			Water
Ka'amilo Wells Pump 2	15-Sep-2025	1303	G		Water
Ka'amilo Wells Pump 2 (Matrix Spike)					Water
Ka'amilo Wells Pump 2 (Matrix Spike Duplicate)					Water
TB: Ka'amilo Wells Pump 2	15-Sep-2025	1303			Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date/Time: _____ Company: HBWS Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: (31A) 4.1+0.0.41 961-10261					



ORIGIN ID HIKK (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

TO
EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

58GJ3780E/59F2

POMONA CA 91768 REF
(626) 386-1100

PO: INV. DEPT.



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MPS# **8844 2499 1116**
Mstr# 8844 2499 1080
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CA-US ONT
WED - 17 SEP 10:30A
PRIORITY OVERNIGHT



(631A) 47700-47 961 frozer
dunnick Mark Varratta 9/17/25 933

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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

Env

Loc: 380
171890

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Lopez, Maria		Carrier Tracking No(s): N/A		COC No: 380-254214.1																																																																		
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 #: 380-171890-1																																																																		
Address: 2841 Dow Avenue, Suite 100,		Due Date Requested: 9/22/2025		<table border="1"> <thead> <tr> <th colspan="10">Analysis Requested</th> </tr> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MMSISD (Yes or No)</th> <th>8015B_DRO_LL_CS3510C_LLHNL Ranges: C10-C24/C24-C36/C6-C18</th> <th>8015B_GRO_LL5030C(MOD) GRO</th> <th>625_1_SMI625_Prep(MOD) Extended PAH List</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Analysis Requested										Field Filtered Sample (Yes or No)	Perform MMSISD (Yes or No)	8015B_DRO_LL_CS3510C_LLHNL Ranges: C10-C24/C24-C36/C6-C18	8015B_GRO_LL5030C(MOD) GRO	625_1_SMI625_Prep(MOD) Extended PAH List									X	X	X										X										X	X	X										X								Preservation Codes:	
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City: Tustin		TAT Requested (days): N/A		Project #: 38001111		Project Name: RED-HILL		Other: N/A																																																																		
State, Zip: CA, 92780		PO #: N/A		SSOW#: N/A		Site: Honolulu BWS Sites		Special Instructions/Note:																																																																		
Phone: 714-895-5464(Tel)		WO #: N/A		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Total Number of Containers																																																																		
Email: N/A		Sample Date		Sample Time		Preservation Code		Special Instructions/Note																																																																		
Sample Identification - Client ID (Lab ID)																																																																										
Ka'amilo Wells Pump 1 (380-171890-1)		9/15/25		12:12 Hawaiian		G Water		7 MRLs are needed. Confirm any hits >RL.																																																																		
TB: Ka'amilo Wells Pump 1 (380-171890-2)		9/15/25		12:12 Hawaiian		G Water		2 MRLs are needed.																																																																		
Ka'amilo Wells Pump 2 (380-171890-3)		9/15/25		13:03 Hawaiian		G Water		7 MRLs are needed. Confirm any hits >RL.																																																																		
TB: Ka'amilo Wells Pump 2 (380-171890-4)		9/15/25		13:03 Hawaiian		G Water		1 MRLs are needed.																																																																		



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

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Mark Urratia</i>		Date/Time: 9/17/25 1610		Company: ESAP		Received by: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: 9/17/25 1729		Company: WP		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.4/1.4 I092			

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-171890-1
SDG Number: Weekly: Ka'amilo Wells Pump 1/Pump 2

Login Number: 171890
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: 380-171890-1
SDG Number: Weekly: Ka'amilo Wells Pump 1/Pump 2

Login Number: 171890

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 09/17/25 06:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	