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ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/3/2025 11:14:12 AM

JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-126200-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

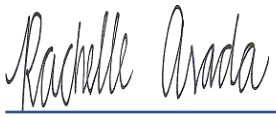
This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



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Authorized for release by
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Table of Contents

Definitions/Glossary

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

Job ID: 380-126200-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

Glossary

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

Job Narrative
380-126200-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/12/2024 10:01 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

GC/MS Semi VOA
Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-513799. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 625.1 SIM

Method 625.1_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-513799. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Method 625.1 SIM

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

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

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

Detection Summary

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

Job ID: 380-126200-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL — Lab Sample ID: 380-126200-1

No Detections.

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL — Lab Sample ID: 380-126200-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-126200-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL
Date Collected: 12/10/24 10:00
Date Received: 12/12/24 10:01

Lab Sample ID: 380-126200-1
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2,4'-DDD	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2,4'-DDE	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2,4'-DDT	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2,4-Dinitrotoluene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2,6-Dinitrotoluene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
2-Methylnaphthalene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
4,4'-DDD	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
4,4'-DDE	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
4,4'-DDT	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Acenaphthene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Acenaphthylene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Acetochlor	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Alachlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
alpha-BHC	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
alpha-Chlordane	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Anthracene	<0.019		0.019		ug/L		12/13/24 08:00	12/15/24 20:26	1
Atrazine	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Benz(a)anthracene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Benzo[a]pyrene	<0.019		0.019		ug/L		12/13/24 08:00	12/15/24 20:26	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		12/13/24 08:00	12/15/24 20:26	1
Benzo[g,h,i]perylene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		12/13/24 08:00	12/15/24 20:26	1
beta-BHC	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		12/13/24 08:00	12/15/24 20:26	1
Bromacil	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Butachlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Butylbenzylphthalate	<0.48	*+	0.48		ug/L		12/13/24 08:00	12/15/24 20:26	1
Chlorobenzilate	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Chloroneb	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Chlorothalonil (Draconil, Bravo)	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Chlorpyrifos	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Chrysene	<0.019		0.019		ug/L		12/13/24 08:00	12/15/24 20:26	1
delta-BHC	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		12/13/24 08:00	12/15/24 20:26	1
Dibenz(a,h)anthracene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Diclorvos (DDVP)	<0.048	^3+	0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Dieldrin	<0.0096		0.0096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Diethylphthalate	<0.48		0.48		ug/L		12/13/24 08:00	12/15/24 20:26	1
Dimethylphthalate	<0.48		0.48		ug/L		12/13/24 08:00	12/15/24 20:26	1
Di-n-butyl phthalate	<0.96		0.96		ug/L		12/13/24 08:00	12/15/24 20:26	1
Di-n-octyl phthalate	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Endosulfan I (Alpha)	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Endosulfan II (Beta)	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Endosulfan sulfate	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Endrin	<0.0096		0.0096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Endrin aldehyde	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
EPTC	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Fluoranthene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1

Client Sample ID: HALAWA SHAFT VIEWING POOL
Date Collected: 12/10/24 10:00
Date Received: 12/12/24 10:01

Lab Sample ID: 380-126200-1
Matrix: Water

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		12/13/24 08:00	12/15/24 20:26	1
gamma-Chlordane	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Heptachlor	<0.0096		0.0096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Heptachlor epoxide (isomer B)	<0.0096		0.0096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Hexachlorobenzene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Hexachlorocyclopentadiene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Isophorone	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Lindane	<0.0096	^3+	0.0096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Malathion	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Methoxychlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Metolachlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Molinate	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Naphthalene	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Parathion	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Pendimethalin (Penoxaline)	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Phenanthrene	<0.039		0.039		ug/L		12/13/24 08:00	12/15/24 20:26	1
Propachlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Pyrene	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Simazine	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Terbacil	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Terbuthylazine	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Thiobencarb	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		12/13/24 08:00	12/15/24 20:26	1
trans-Nonachlor	<0.048		0.048		ug/L		12/13/24 08:00	12/15/24 20:26	1
Trifluralin	<0.096		0.096		ug/L		12/13/24 08:00	12/15/24 20:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.9*	*T J*	*ug/L*		*15.38*	*N/A*	*12/13/24 08:00*	*12/15/24 20:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*95*		*70 - 130*	*12/13/24 08:00*	*12/15/24 20:26*	*1*
Perylene-d12	*88*		*70 - 130*	*12/13/24 08:00*	*12/15/24 20:26*	*1*
Triphenylphosphate	*98*		*70 - 130*	*12/13/24 08:00*	*12/15/24 20:26*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
2-Methylnaphthalene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Acenaphthene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Acenaphthylene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Anthracene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Benzo[a]anthracene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Benzo[a]pyrene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Benzo[b]fluoranthene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Benzo[g,h,i]perylene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Benzo[k]fluoranthene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Chrysene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Dibenz(a,h)anthracene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Fluoranthene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-126200-1

Date Collected: 12/10/24 10:00
Date Received: 12/12/24 10:01

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Naphthalene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Phenanthrene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1
Pyrene	<0.19		0.19		ug/L		12/13/24 19:22	12/16/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*28 - 127*	*12/13/24 19:22*	*12/16/24 18:43*	*1*
2-Fluorobiphenyl (Surr)	*80*		*31 - 120*	*12/13/24 19:22*	*12/16/24 18:43*	*1*
2-Fluorophenol (Surr)	*39*		*17 - 120*	*12/13/24 19:22*	*12/16/24 18:43*	*1*
Nitrobenzene-d5 (Surr)	*79*		*27 - 120*	*12/13/24 19:22*	*12/16/24 18:43*	*1*
Phenol-d6 (Surr)	*25*		*10 - 120*	*12/13/24 19:22*	*12/16/24 18:43*	*1*
p-Terphenyl-d14 (Surr)	*87*		*45 - 120*	*12/13/24 19:22*	*12/16/24 18:43*	*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*	*12/13/24 19:22*	*01/02/25 17:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*73*		*33 - 139*	*12/13/24 19:22*	*01/02/25 17:09*	*1*
2-Fluorobiphenyl (Surr)	*77*		*33 - 126*	*12/13/24 19:22*	*01/02/25 17:09*	*1*
2-Fluorophenol (Surr)	*33*		*12 - 120*	*12/13/24 19:22*	*01/02/25 17:09*	*1*
Nitrobenzene-d5 (Surr)	*65*		*36 - 120*	*12/13/24 19:22*	*01/02/25 17:09*	*1*
Phenol-d6 (Surr)	*19*		*10 - 120*	*12/13/24 19:22*	*01/02/25 17:09*	*1*
p-Terphenyl-d14 (Surr)	*80*		*47 - 131*	*12/13/24 19:22*	*01/02/25 17:09*	*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			12/21/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*38 - 134*		*12/21/24 00:01*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25		ug/L		12/15/24 15:02	12/19/24 09:49	1
Motor Oil Range Organics [C24-C36]	<25		25		ug/L		12/15/24 15:02	12/19/24 09:49	1
C8-C18	<25		25		ug/L		12/15/24 15:02	12/19/24 09:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*130*		*60 - 130*	*12/15/24 15:02*	*12/19/24 09:49*	*1*

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-126200-2

Date Collected: 12/10/24 10:00
Date Received: 12/12/24 10:01

Matrix: Water

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			12/20/24 23:09	1

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

Job ID: 380-126200-1
SDG: Weekly

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL
Date Collected: 12/10/24 10:00
Date Received: 12/12/24 10:01

Lab Sample ID: 380-126200-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*79*		*38 - 134*		*12/20/24 23:09*	*1*

Action Limit Summary

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

Job ID: 380-126200-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-126200-1

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

Surrogate Summary

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

Job ID: 380-126200-1
SDG: Weekly

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		2NMX	PRY	TPP						
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)						
380-125854-B-1-A MS	Matrix Spike	107	78	104						
380-126174-B-1-A DU	Duplicate	92	85	112						
380-126200-1	HALAWA SHAFT VIEWING POOL	95	88	98						
LCS 380-123608/23-A	Lab Control Sample	104	92	110						
LCSD 380-123608/24-A	Lab Control Sample Dup	102	91	106						
MB 380-123608/21-A	Method Blank	93	90	103						
MRL 380-123608/22-A	Lab Control Sample	105	86	104						

Surrogate Legend

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

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL6	TPHd14		
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)		
380-126200-1	HALAWA SHAFT VIEWING POOL	73	77	33	65	19	80		
MB 570-513799/1-A	Method Blank	69	82	38	72	22	81		

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**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL6	TPHd14		
Lab Sample ID	Client Sample ID	(28-127)	(31-120)	(17-120)	(27-120)	(10-120)	(45-120)		
380-126200-1	HALAWA SHAFT VIEWING POOL	77	80	39	79	25	87		
LCS 570-513799/2-A	Lab Control Sample	84	83	54	71	35	88		
LCSD 570-513799/3-A	Lab Control Sample Dup	93	81	60	74	42	110		
MB 570-513799/1-A	Method Blank	85	85	49	88	30	88		

Surrogate Legend

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

Surrogate Summary

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

Job ID: 380-126200-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB1								
Lab Sample ID	Client Sample ID	(38-134)								
380-125825-C-3 MS	Matrix Spike	84								
380-125825-C-3 MSD	Matrix Spike Duplicate	88								
380-126200-1	HALAWA SHAFT VIEWING POOL	72								
380-126200-2	TB: HALAWA SHAFT VIEWING POOL	79								
LCS 570-516428/4	Lab Control Sample	87								
LCSD 570-516428/5	Lab Control Sample Dup	86								
MB 570-516428/6	Method Blank	82								
MRL 570-516428/3	Lab Control Sample	83								

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)								
		OTCSN1								
Lab Sample ID	Client Sample ID	(60-130)								
380-125825-B-3-A MS	Matrix Spike	125								
380-125825-B-3-B MSD	Matrix Spike Duplicate	123								
380-126200-1	HALAWA SHAFT VIEWING POOL	130								
LCS 570-514170/2-A	Lab Control Sample	95								
LCSD 570-514170/3-A	Lab Control Sample Dup	118								
MB 570-514170/1-A	Method Blank	121								
MRL 570-514170/4-A	Lab Control Sample	125								

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

Lab Sample ID: MB 380-123608/21-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123608

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2,4'-DDD	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2,4'-DDE	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2,4'-DDT	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
2-Methylnaphthalene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
4,4'-DDD	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
4,4'-DDE	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
4,4'-DDT	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Acenaphthene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Acenaphthylene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Acetochlor	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Alachlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
alpha-BHC	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
alpha-Chlordane	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Anthracene	<0.020		0.020		ug/L		12/13/24 08:00	12/15/24 14:20	1
Atrazine	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Benz(a)anthracene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Benzo[a]pyrene	<0.020		0.020		ug/L		12/13/24 08:00	12/15/24 14:20	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		12/13/24 08:00	12/15/24 14:20	1
Benzo[g,h,i]perylene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		12/13/24 08:00	12/15/24 14:20	1
beta-BHC	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		12/13/24 08:00	12/15/24 14:20	1
Bromacil	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Butachlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Butylbenzylphthalate	<0.50		0.50		ug/L		12/13/24 08:00	12/15/24 14:20	1
Chlorobenzilate	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Chloroneb	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Chlorpyrifos	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Chrysene	<0.020		0.020		ug/L		12/13/24 08:00	12/15/24 14:20	1
delta-BHC	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Di(2-ethylhexyl)adipate	<0.59		0.59		ug/L		12/13/24 08:00	12/15/24 14:20	1
Dibenz(a,h)anthracene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Diclorvos (DDVP)	<0.050	^3+	0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Dieldrin	<0.0099		0.0099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Diethylphthalate	<0.50		0.50		ug/L		12/13/24 08:00	12/15/24 14:20	1
Dimethylphthalate	<0.50		0.50		ug/L		12/13/24 08:00	12/15/24 14:20	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		12/13/24 08:00	12/15/24 14:20	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Endosulfan sulfate	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Endrin	<0.0099		0.0099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Endrin aldehyde	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
EPTC	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1

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

Lab Sample ID: MB 380-123608/21-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123608

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Fluorene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
gamma-Chlordane	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Heptachlor	<0.0099		0.0099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Hexachlorobenzene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Hexachlorocyclopentadiene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Isophorone	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Lindane	<0.0099	^3+	0.0099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Malathion	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Methoxychlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Metolachlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Molinate	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Naphthalene	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Parathion	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Phenanthrene	<0.040		0.040		ug/L		12/13/24 08:00	12/15/24 14:20	1
Propachlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Pyrene	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Simazine	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Terbacil	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Terbuthylazine	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Thiobencarb	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		12/13/24 08:00	12/15/24 14:20	1
trans-Nonachlor	<0.050		0.050		ug/L		12/13/24 08:00	12/15/24 14:20	1
Trifluralin	<0.099		0.099		ug/L		12/13/24 08:00	12/15/24 14:20	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclotetrasiloxane, octamethyl-	*2.10*	*T J N*	*ug/L*		*2.68*	*556-67-2*	*12/13/24 08:00*	*12/15/24 14:20*	*1*
Cyclohexasiloxane, dodecamethyl-	*0.702*	*T J N*	*ug/L*		*3.83*	*540-97-6*	*12/13/24 08:00*	*12/15/24 14:20*	*1*
9-Octadecenamide, (Z)-	*1.62*	*T J N*	*ug/L*		*7.80*	*301-02-0*	*12/13/24 08:00*	*12/15/24 14:20*	*1*
Unknown	*0.605*	*T J*	*ug/L*		*10.13*	*N/A*	*12/13/24 08:00*	*12/15/24 14:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*93*		*70 - 130*	*12/13/24 08:00*	*12/15/24 14:20*	*1*
Perylene-d12	*90*		*70 - 130*	*12/13/24 08:00*	*12/15/24 14:20*	*1*
Triphenylphosphate	*103*		*70 - 130*	*12/13/24 08:00*	*12/15/24 14:20*	*1*

Lab Sample ID: LCS 380-123608/23-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.99	1.83		ug/L		92	70 - 130
2,4'-DDD	1.99	1.98		ug/L		100	70 - 130
2,4'-DDE	1.99	2.00		ug/L		101	70 - 130
2,4'-DDT	1.99	1.97		ug/L		99	70 - 130

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

Lab Sample ID: LCS 380-123608/23-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.99	1.58		ug/L		80	70 - 130
2,6-Dinitrotoluene	1.99	1.59		ug/L		80	70 - 130
2-Methylnaphthalene	1.99	2.00		ug/L		101	70 - 130
4,4'-DDD	1.99	2.06		ug/L		104	70 - 130
4,4'-DDE	1.99	2.02		ug/L		102	70 - 130
4,4'-DDT	1.99	2.19		ug/L		110	70 - 130
Acenaphthene	1.99	1.79		ug/L		90	70 - 130
Acenaphthylene	1.99	1.84		ug/L		93	70 - 130
Acetochlor	1.99	2.31		ug/L		116	70 - 130
Alachlor	1.99	1.95		ug/L		98	70 - 130
alpha-BHC	1.99	1.85		ug/L		93	70 - 130
alpha-Chlordane	1.99	2.11		ug/L		106	70 - 130
Anthracene	1.99	1.72		ug/L		87	70 - 130
Atrazine	1.99	1.97		ug/L		99	70 - 130
Benz(a)anthracene	1.99	1.91		ug/L		96	70 - 130
Benzo[a]pyrene	1.99	1.78		ug/L		90	70 - 130
Benzo[b]fluoranthene	1.99	1.96		ug/L		99	70 - 130
Benzo[g,h,i]perylene	1.99	1.98		ug/L		100	70 - 130
Benzo[k]fluoranthene	1.99	2.02		ug/L		102	70 - 130
beta-BHC	1.99	1.89		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.10		ug/L		106	70 - 130
Bromacil	1.99	1.79		ug/L		90	70 - 130
Butachlor	1.99	2.30		ug/L		116	70 - 130
Butylbenzylphthalate	1.99	2.61	*+	ug/L		131	70 - 130
Chlorobenzilate	1.99	1.76		ug/L		89	70 - 130
Chloroneb	1.99	2.04		ug/L		103	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.09		ug/L		105	70 - 130
Chlorpyrifos	1.99	1.98		ug/L		100	70 - 130
Chrysene	1.99	1.79		ug/L		90	70 - 130
delta-BHC	1.99	1.94		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.52		ug/L		127	70 - 130
Dibenz(a,h)anthracene	1.99	1.75		ug/L		88	70 - 130
Diclorvos (DDVP)	1.99	2.37		ug/L		120	70 - 130
Dieldrin	1.99	1.95		ug/L		98	70 - 130
Diethylphthalate	1.99	2.05		ug/L		103	70 - 130
Dimethylphthalate	1.99	1.94		ug/L		98	70 - 130
Di-n-butyl phthalate	3.97	3.85		ug/L		97	70 - 130
Di-n-octyl phthalate	1.99	1.84		ug/L		93	70 - 130
Endosulfan I (Alpha)	1.99	1.92		ug/L		97	70 - 130
Endosulfan II (Beta)	1.99	2.13		ug/L		107	70 - 130
Endosulfan sulfate	1.99	2.26		ug/L		114	70 - 130
Endrin	1.99	1.91		ug/L		96	70 - 130
Endrin aldehyde	1.99	1.79		ug/L		90	60 - 130
EPTC	1.99	2.04		ug/L		103	70 - 130
Fluoranthene	1.99	2.07		ug/L		104	70 - 130
Fluorene	1.99	1.96		ug/L		99	70 - 130
gamma-Chlordane	1.99	2.20		ug/L		111	70 - 130
Heptachlor	1.99	1.84		ug/L		92	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.18		ug/L		110	70 - 130

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

Lab Sample ID: LCS 380-123608/23-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Hexachlorobenzene			1.99	1.81		ug/L		91	70 - 130		
Hexachlorocyclopentadiene			1.99	1.90		ug/L		96	70 - 130		
Indeno[1,2,3-cd]pyrene			1.99	1.77		ug/L		89	70 - 130		
Isophorone			1.99	2.07		ug/L		104	70 - 130		
Lindane			1.99	2.04		ug/L		103	70 - 130		
Malathion			1.99	2.06		ug/L		104	70 - 130		
Methoxychlor			1.99	1.88		ug/L		95	70 - 130		
Metolachlor			1.99	2.02		ug/L		102	70 - 130		
Molinate			1.99	2.08		ug/L		105	70 - 130		
Naphthalene			1.99	2.06		ug/L		104	70 - 130		
Parathion			1.99	1.77		ug/L		89	70 - 130		
Pendimethalin (Penoxaline)			1.99	1.72		ug/L		87	70 - 130		
Phenanthrene			1.99	1.85		ug/L		93	70 - 130		
Propachlor			1.99	1.76		ug/L		89	70 - 130		
Pyrene			1.99	2.00		ug/L		101	70 - 130		
Simazine			1.99	2.04		ug/L		103	70 - 130		
Terbacil			1.99	2.02		ug/L		102	70 - 130		
Terbuthylazine			1.99	1.96		ug/L		99	70 - 130		
Thiobencarb			1.99	1.91		ug/L		96	70 - 130		
trans-Nonachlor			1.99	2.06		ug/L		104	70 - 130		
Trifluralin			1.99	1.51		ug/L		76	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*104*		*70 - 130*
Perylene-d12	*92*		*70 - 130*
Triphenylphosphate	*110*		*70 - 130*

Lab Sample ID: LCSD 380-123608/24-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123608

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			1.98	1.81		ug/L		91	70 - 130	1	20
2,4'-DDD			1.98	1.94		ug/L		98	70 - 130	2	20
2,4'-DDE			1.98	1.88		ug/L		95	70 - 130	6	20
2,4'-DDT			1.98	1.91		ug/L		96	70 - 130	3	20
2,4-Dinitrotoluene			1.98	1.50		ug/L		75	70 - 130	5	20
2,6-Dinitrotoluene			1.98	1.55		ug/L		78	70 - 130	2	20
2-Methylnaphthalene			1.98	1.87		ug/L		94	70 - 130	7	20
4,4'-DDD			1.98	2.00		ug/L		101	70 - 130	3	20
4,4'-DDE			1.98	2.00		ug/L		101	70 - 130	1	20
4,4'-DDT			1.98	2.12		ug/L		107	70 - 130	3	20
Acenaphthene			1.98	1.83		ug/L		93	70 - 130	2	20
Acenaphthylene			1.98	1.81		ug/L		91	70 - 130	2	20
Acetochlor			1.98	2.15		ug/L		109	70 - 130	7	20
Alachlor			1.98	2.16		ug/L		109	70 - 130	10	20
alpha-BHC			1.98	2.05		ug/L		103	70 - 130	10	20
alpha-Chlordane			1.98	2.06		ug/L		104	70 - 130	3	20

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

Lab Sample ID: LCSD 380-123608/24-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	1.98	1.79		ug/L		90	70 - 130	4	20
Atrazine	1.98	2.03		ug/L		102	70 - 130	3	20
Benz(a)anthracene	1.98	1.93		ug/L		97	70 - 130	1	20
Benzo[a]pyrene	1.98	1.83		ug/L		93	70 - 130	3	20
Benzo[b]fluoranthene	1.98	2.01		ug/L		101	70 - 130	2	20
Benzo[g,h,i]perylene	1.98	2.03		ug/L		102	70 - 130	2	20
Benzo[k]fluoranthene	1.98	2.08		ug/L		105	70 - 130	3	20
beta-BHC	1.98	1.79		ug/L		90	70 - 130	5	20
Bis(2-ethylhexyl) phthalate	1.98	2.22		ug/L		112	70 - 130	6	20
Bromacil	1.98	2.09		ug/L		106	70 - 130	15	20
Butachlor	1.98	2.04		ug/L		103	70 - 130	12	20
Butylbenzylphthalate	1.98	2.36		ug/L		119	70 - 130	10	20
Chlorobenzilate	1.98	1.80		ug/L		91	70 - 130	2	20
Chloroneb	1.98	2.09		ug/L		106	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)	1.98	2.12		ug/L		107	70 - 130	2	20
Chlorpyrifos	1.98	2.03		ug/L		103	70 - 130	3	20
Chrysene	1.98	1.81		ug/L		91	70 - 130	1	20
delta-BHC	1.98	2.09		ug/L		106	70 - 130	8	20
Di(2-ethylhexyl)adipate	1.98	2.24		ug/L		113	70 - 130	12	20
Dibenz(a,h)anthracene	1.98	1.86		ug/L		94	70 - 130	6	20
Diclorvos (DDVP)	1.98	2.29		ug/L		115	70 - 130	4	20
Dieldrin	1.98	1.86		ug/L		94	70 - 130	4	20
Diethylphthalate	1.98	2.08		ug/L		105	70 - 130	2	20
Dimethylphthalate	1.98	1.87		ug/L		94	70 - 130	4	20
Di-n-butyl phthalate	3.96	4.35		ug/L		110	70 - 130	12	20
Di-n-octyl phthalate	1.98	1.95		ug/L		98	70 - 130	6	20
Endosulfan I (Alpha)	1.98	1.80		ug/L		91	70 - 130	7	20
Endosulfan II (Beta)	1.98	1.90		ug/L		96	70 - 130	11	20
Endosulfan sulfate	1.98	2.02		ug/L		102	70 - 130	11	20
Endrin	1.98	1.90		ug/L		96	70 - 130	1	20
Endrin aldehyde	1.98	1.90		ug/L		96	60 - 130	6	20
EPTC	1.98	1.99		ug/L		100	70 - 130	3	20
Fluoranthene	1.98	1.93		ug/L		97	70 - 130	7	20
Fluorene	1.98	1.95		ug/L		98	70 - 130	1	20
gamma-Chlordane	1.98	2.05		ug/L		103	70 - 130	7	20
Heptachlor	1.98	2.03		ug/L		103	70 - 130	10	20
Heptachlor epoxide (isomer B)	1.98	2.04		ug/L		103	70 - 130	7	20
Hexachlorobenzene	1.98	1.82		ug/L		92	70 - 130	0	20
Hexachlorocyclopentadiene	1.98	1.88		ug/L		95	70 - 130	1	20
Indeno[1,2,3-cd]pyrene	1.98	1.82		ug/L		92	70 - 130	3	20
Isophorone	1.98	2.11		ug/L		106	70 - 130	2	20
Lindane	1.98	1.88		ug/L		95	70 - 130	9	20
Malathion	1.98	2.36		ug/L		119	70 - 130	14	20
Methoxychlor	1.98	1.97		ug/L		99	70 - 130	4	20
Metolachlor	1.98	2.09		ug/L		105	70 - 130	3	20
Molinate	1.98	1.94		ug/L		98	70 - 130	7	20
Naphthalene	1.98	2.08		ug/L		105	70 - 130	1	20
Parathion	1.98	1.88		ug/L		95	70 - 130	6	20
Pendimethalin (Penoxaline)	1.98	1.78		ug/L		90	70 - 130	3	20

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

Lab Sample ID: LCSD 380-123608/24-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123608

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene			1.98	1.93		ug/L		97	70 - 130	4	20
Propachlor			1.98	2.16		ug/L		109	70 - 130	20	20
Pyrene			1.98	1.92		ug/L		97	70 - 130	4	20
Simazine			1.98	2.11		ug/L		107	70 - 130	3	20
Terbacil			1.98	2.22		ug/L		112	70 - 130	10	20
Terbuthylazine			1.98	1.91		ug/L		97	70 - 130	3	20
Thiobencarb			1.98	2.27		ug/L		115	70 - 130	17	20
trans-Nonachlor			1.98	2.00		ug/L		101	70 - 130	3	20
Trifluralin			1.98	1.58		ug/L		80	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Nitro-m-xylene	*102*		*70 - 130*
Perylene-d12	*91*		*70 - 130*
Triphenylphosphate	*106*		*70 - 130*

Lab Sample ID: MRL 380-123608/22-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene			0.0990	0.131		ug/L		132	50 - 150
2,4'-DDD			0.0990	0.103		ug/L		104	50 - 150
2,4'-DDE			0.0990	0.101		ug/L		102	50 - 150
2,4'-DDT			0.0990	0.0927	J	ug/L		94	50 - 150
2,4-Dinitrotoluene			0.0990	0.104		ug/L		105	50 - 150
2,6-Dinitrotoluene			0.0990	0.105		ug/L		106	50 - 150
2-Methylnaphthalene			0.0990	0.121		ug/L		122	50 - 150
4,4'-DDD			0.0990	0.117		ug/L		118	50 - 150
4,4'-DDE			0.0990	0.109		ug/L		110	50 - 150
4,4'-DDT			0.0990	0.104		ug/L		105	50 - 150
Acenaphthene			0.0990	0.0965	J	ug/L		97	50 - 150
Acenaphthylene			0.0990	0.0951	J	ug/L		96	50 - 150
Acetochlor			0.0990	0.103		ug/L		104	50 - 150
Alachlor			0.0495	0.0478	J	ug/L		97	50 - 150
alpha-BHC			0.0990	0.116		ug/L		117	50 - 150
alpha-Chlordane			0.0248	<0.029		ug/L		115	50 - 150
Anthracene			0.0198	0.0209		ug/L		106	50 - 150
Atrazine			0.0495	0.0577		ug/L		117	50 - 150
Benz(a)anthracene			0.0495	0.0538		ug/L		109	50 - 150
Benzo[a]pyrene			0.0198	0.0180	J	ug/L		91	50 - 150
Benzo[b]fluoranthene			0.0198	0.0180	J	ug/L		91	50 - 150
Benzo[g,h,i]perylene			0.0495	0.0399	J	ug/L		81	50 - 150
Benzo[k]fluoranthene			0.0198	0.0195	J	ug/L		98	50 - 150
beta-BHC			0.0990	0.117		ug/L		119	50 - 150
Bis(2-ethylhexyl) phthalate			0.594	0.646		ug/L		109	50 - 150
Bromacil			0.0990	0.104		ug/L		105	50 - 150
Butachlor			0.0495	0.0597		ug/L		121	50 - 150
Butylbenzylphthalate			0.495	0.636		ug/L		129	50 - 150

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

Lab Sample ID: MRL 380-123608/22-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	0.0990	0.0863	J	ug/L		87	50 - 150
Chloroneb	0.0990	0.101		ug/L		102	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0990	0.0926	J	ug/L		94	50 - 150
Chlorpyrifos	0.0495	0.0523		ug/L		106	50 - 150
Chrysene	0.0198	0.0202		ug/L		102	50 - 150
delta-BHC	0.0990	0.126		ug/L		127	50 - 150
Di(2-ethylhexyl)adipate	0.594	0.817		ug/L		138	50 - 150
Dibenz(a,h)anthracene	0.0495	0.0484	J	ug/L		98	50 - 150
Diclorvos (DDVP)	0.0495	0.0761	^3+	ug/L		154	50 - 150
Dieldrin	0.00990	0.00999		ug/L		101	50 - 150
Diethylphthalate	0.495	0.584		ug/L		118	50 - 150
Dimethylphthalate	0.495	0.552		ug/L		111	50 - 150
Di-n-butyl phthalate	0.495	0.505	J	ug/L		102	49 - 243
Di-n-octyl phthalate	0.0990	0.0962	J	ug/L		97	50 - 150
Endosulfan I (Alpha)	0.0990	0.105		ug/L		106	50 - 150
Endosulfan II (Beta)	0.0990	0.128		ug/L		129	50 - 150
Endosulfan sulfate	0.0990	0.116		ug/L		117	50 - 150
Endrin	0.00990	0.00925	J	ug/L		93	50 - 150
Endrin aldehyde	0.0990	0.120		ug/L		121	50 - 150
EPTC	0.0990	0.105		ug/L		106	50 - 150
Fluoranthene	0.0990	0.108		ug/L		109	50 - 150
Fluorene	0.0495	0.0565		ug/L		114	50 - 150
gamma-Chlordane	0.0248	0.0249	J	ug/L		100	50 - 150
Heptachlor	0.00990	0.0118		ug/L		119	50 - 150
Heptachlor epoxide (isomer B)	0.00990	0.0132		ug/L		133	50 - 150
Hexachlorobenzene	0.0495	0.0508		ug/L		103	50 - 150
Hexachlorocyclopentadiene	0.0495	0.0484	J	ug/L		98	50 - 150
Indeno[1,2,3-cd]pyrene	0.0495	0.0537		ug/L		108	50 - 150
Isophorone	0.0990	0.137		ug/L		139	50 - 150
Lindane	0.00990	0.0168	^3+	ug/L		170	50 - 150
Malathion	0.0990	0.0864	J	ug/L		87	50 - 150
Methoxychlor	0.0495	0.0510		ug/L		103	50 - 150
Metolachlor	0.0495	0.0548		ug/L		111	50 - 150
Molinate	0.0990	0.106		ug/L		107	50 - 150
Naphthalene	0.0990	0.141		ug/L		142	50 - 150
Parathion	0.0990	0.0803	J	ug/L		81	50 - 150
Pendimethalin (Penoxaline)	0.0990	0.0856	J	ug/L		86	50 - 150
Phenanthrene	0.0396	0.0466		ug/L		118	50 - 150
Propachlor	0.0495	0.0473	J	ug/L		96	50 - 150
Pyrene	0.0495	0.0510		ug/L		103	50 - 150
Simazine	0.0495	0.0585		ug/L		118	50 - 150
Terbacil	0.0990	0.100		ug/L		101	50 - 150
Terbuthylazine	0.0990	0.103		ug/L		104	50 - 150
Thiobencarb	0.0990	0.0955	J	ug/L		96	50 - 150
trans-Nonachlor	0.0248	0.0272	J	ug/L		110	50 - 150
Trifluralin	0.0990	0.0963	J	ug/L		97	50 - 150

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

Lab Sample ID: MRL 380-123608/22-A
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123608

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	*105*		*70 - 130*
Perylene-d12	*86*		*70 - 130*
Triphenylphosphate	*104*		*70 - 130*

Lab Sample ID: 380-125854-B-1-A MS
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.94	1.84		ug/L		94	70 - 130
2,4'-DDD	<0.097		1.94	2.09		ug/L		108	70 - 130
2,4'-DDE	<0.097		1.94	2.10		ug/L		108	70 - 130
2,4'-DDT	<0.097		1.94	2.05		ug/L		106	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.54		ug/L		79	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.78		ug/L		92	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.86		ug/L		96	70 - 130
4,4'-DDD	<0.097		1.94	2.09		ug/L		108	70 - 130
4,4'-DDE	<0.097		1.94	1.99		ug/L		103	70 - 130
4,4'-DDT	<0.097		1.94	2.12		ug/L		110	70 - 130
Acenaphthene	<0.097		1.94	1.79		ug/L		93	70 - 130
Acenaphthylene	<0.097		1.94	1.69		ug/L		87	70 - 130
Acetochlor	<0.097		1.94	2.02		ug/L		104	70 - 130
Alachlor	<0.048		1.94	2.22		ug/L		114	70 - 130
alpha-BHC	<0.097		1.94	1.81		ug/L		93	70 - 130
alpha-Chlordane	<0.048		1.94	2.10		ug/L		108	70 - 130
Anthracene	<0.019	F1	1.94	0.0261	F1	ug/L		1	70 - 130
Atrazine	<0.048		1.94	1.93		ug/L		99	70 - 130
Benz(a)anthracene	<0.048	F1	1.94	0.860	F1	ug/L		44	70 - 130
Benzo[a]pyrene	<0.019	F1	1.94	0.301	F1	ug/L		16	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	1.87		ug/L		97	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	1.82		ug/L		94	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	1.80		ug/L		93	70 - 130
beta-BHC	<0.097		1.94	1.92		ug/L		99	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	2.17		ug/L		112	70 - 130
Bromacil	<0.097		1.94	2.04		ug/L		106	70 - 130
Butachlor	<0.048		1.94	2.29		ug/L		118	70 - 130
Butylbenzylphthalate	<0.48	*+	1.94	2.34		ug/L		121	70 - 130
Chlorobenzilate	<0.097		1.94	2.14		ug/L		110	70 - 130
Chloroneb	<0.097		1.94	2.00		ug/L		103	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.01		ug/L		104	70 - 130
Chlorpyrifos	<0.048		1.94	2.19		ug/L		113	70 - 130
Chrysene	<0.019		1.94	1.75		ug/L		90	70 - 130
delta-BHC	<0.097		1.94	1.78		ug/L		92	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.40		ug/L		124	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	1.63		ug/L		84	70 - 130
Diclorvos (DDVP)	<0.048	^3+	1.94	2.30		ug/L		119	70 - 130
Dieldrin	<0.0097		1.94	2.10		ug/L		108	70 - 130
Diethylphthalate	<0.48		1.94	2.17		ug/L		112	70 - 130

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

Lab Sample ID: 380-125854-B-1-A MS
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dimethylphthalate	<0.48		1.94	2.04		ug/L		105	70 - 130
Di-n-butyl phthalate	<0.97		3.88	4.42		ug/L		114	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.88		ug/L		97	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	2.08		ug/L		107	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.12		ug/L		110	70 - 130
Endosulfan sulfate	<0.097		1.94	2.17		ug/L		112	70 - 130
Endrin	<0.0097		1.94	2.07		ug/L		107	70 - 130
Endrin aldehyde	<0.097		1.94	1.56		ug/L		81	60 - 130
EPTC	<0.097		1.94	1.97		ug/L		102	70 - 130
Fluoranthene	<0.097		1.94	2.05		ug/L		106	70 - 130
Fluorene	<0.048		1.94	2.03		ug/L		104	70 - 130
gamma-Chlordane	<0.048		1.94	2.11		ug/L		109	70 - 130
Heptachlor	<0.0097		1.94	2.12		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.02		ug/L		104	70 - 130
Hexachlorobenzene	<0.048		1.94	1.79		ug/L		92	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	1.93		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	1.71		ug/L		88	70 - 130
Isophorone	<0.097		1.94	2.14		ug/L		110	70 - 130
Lindane	<0.0097	^3+	1.94	1.99		ug/L		103	70 - 130
Malathion	<0.097		1.94	2.24		ug/L		115	70 - 130
Methoxychlor	<0.048		1.94	1.98		ug/L		102	70 - 130
Metolachlor	<0.048		1.94	2.24		ug/L		116	70 - 130
Molinate	<0.097		1.94	1.85		ug/L		96	70 - 130
Naphthalene	<0.097		1.94	2.10		ug/L		108	70 - 130
Parathion	<0.097		1.94	2.20		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	1.90		ug/L		98	70 - 130
Phenanthrene	<0.039		1.94	1.87		ug/L		97	70 - 130
Propachlor	<0.048		1.94	2.07		ug/L		107	70 - 130
Pyrene	<0.048		1.94	1.88		ug/L		97	70 - 130
Simazine	<0.048		1.94	1.97		ug/L		101	70 - 130
Terbacil	<0.097		1.94	2.19		ug/L		113	70 - 130
Terbuthylazine	<0.097		1.94	2.02		ug/L		104	70 - 130
Thiobencarb	<0.097		1.94	2.19		ug/L		113	70 - 130
trans-Nonachlor	<0.048		1.94	2.01		ug/L		103	70 - 130
Trifluralin	<0.097		1.94	1.76		ug/L		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*107*		*70 - 130*
Perylene-d12	*78*		*70 - 130*
Triphenylphosphate	*104*		*70 - 130*

Lab Sample ID: 380-126174-B-1-A DU
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.098		<0.097		ug/L		NC	20
2,4'-DDD	<0.098		<0.097		ug/L		NC	20

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

Lab Sample ID: 380-126174-B-1-A DU
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
2,4'-DDE	<0.098		<0.097		ug/L		NC	20
2,4'-DDT	<0.098		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.097		ug/L		NC	20
4,4'-DDD	<0.098		<0.097		ug/L		NC	20
4,4'-DDE	<0.098		<0.097		ug/L		NC	20
4,4'-DDT	<0.098		<0.097		ug/L		NC	20
Acenaphthene	<0.098		<0.097		ug/L		NC	20
Acenaphthylene	<0.098		<0.097		ug/L		NC	20
Acetochlor	<0.098		<0.097		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.097		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.019		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.019		ug/L		NC	20
beta-BHC	<0.098		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.58		ug/L		NC	20
Bromacil	<0.098		<0.097		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49	*+	<0.49	*+	ug/L		NC	20
Chlorobenzilate	<0.098		<0.097		ug/L		NC	20
Chloroneb	<0.098		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.097		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.019		ug/L		NC	20
delta-BHC	<0.098		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049	^3+	<0.049		ug/L		NC	20
Dieldrin	<0.0098		<0.0097		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.097		ug/L		NC	20
Endrin	<0.0098		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.098		<0.097		ug/L		NC	20
EPTC	<0.098		<0.097		ug/L		NC	20
Fluoranthene	<0.098		<0.097		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20

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

Lab Sample ID: 380-126174-B-1-A DU
Matrix: Water
Analysis Batch: 123803

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 123608

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Heptachlor	<0.0098			<0.0097		ug/L				NC	20
Heptachlor epoxide (isomer B)	<0.0098			<0.0097		ug/L				NC	20
Hexachlorobenzene	<0.049			<0.049		ug/L				NC	20
Hexachlorocyclopentadiene	<0.049			<0.049		ug/L				NC	20
Indeno[1,2,3-cd]pyrene	<0.049			<0.049		ug/L				NC	20
Isophorone	<0.098			<0.097		ug/L				NC	20
Lindane	<0.0098	^3+		<0.0097		ug/L				NC	20
Malathion	<0.098			<0.097		ug/L				NC	20
Methoxychlor	<0.049			<0.049		ug/L				NC	20
Metolachlor	<0.049			<0.049		ug/L				NC	20
Molinate	<0.098			<0.097		ug/L				NC	20
Naphthalene	<0.098			<0.097		ug/L				NC	20
Parathion	<0.098			<0.097		ug/L				NC	20
Pendimethalin (Penoxaline)	<0.098			<0.097		ug/L				NC	20
Phenanthrene	<0.039			<0.039		ug/L				NC	20
Propachlor	<0.049			<0.049		ug/L				NC	20
Pyrene	<0.049			<0.049		ug/L				NC	20
Simazine	<0.049			<0.049		ug/L				NC	20
Terbacil	<0.098			<0.097		ug/L				NC	20
Terbuthylazine	<0.098			<0.097		ug/L				NC	20
Thiobencarb	<0.098			<0.097		ug/L				NC	20
Total Permethrin (mixed isomers)	<0.20			<0.19		ug/L				NC	20
trans-Nonachlor	<0.049			<0.049		ug/L				NC	20
Trifluralin	<0.098			<0.097		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*92*		*70 - 130*
Perylene-d12	*85*		*70 - 130*
Triphenylphosphate	*112*		*70 - 130*

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

Lab Sample ID: MB 570-513799/1-A
Matrix: Water
Analysis Batch: 519488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513799

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*12/13/24 19:22*	*01/02/25 16:22*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*69*		*33 - 139*	*12/13/24 19:22*	*01/02/25 16:22*	*1*
2-Fluorobiphenyl (Surr)	*82*		*33 - 126*	*12/13/24 19:22*	*01/02/25 16:22*	*1*
2-Fluorophenol (Surr)	*38*		*12 - 120*	*12/13/24 19:22*	*01/02/25 16:22*	*1*
Nitrobenzene-d5 (Surr)	*72*		*36 - 120*	*12/13/24 19:22*	*01/02/25 16:22*	*1*
Phenol-d6 (Surr)	*22*		*10 - 120*	*12/13/24 19:22*	*01/02/25 16:22*	*1*
p-Terphenyl-d14 (Surr)	*81*		*47 - 131*	*12/13/24 19:22*	*01/02/25 16:22*	*1*

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

Lab Sample ID: MB 570-513799/1-A
Matrix: Water
Analysis Batch: 514499

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513799

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
2-Methylnaphthalene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Acenaphthene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Acenaphthylene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Anthracene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Benzo[a]anthracene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Benzo[a]pyrene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Benzo[b]fluoranthene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Benzo[g,h,i]perylene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Benzo[k]fluoranthene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Chrysene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Dibenz(a,h)anthracene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Fluoranthene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Fluorene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Naphthalene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Phenanthrene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1
Pyrene	<0.20		0.20		ug/L		12/13/24 19:22	12/16/24 14:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*28 - 127*	*12/13/24 19:22*	*12/16/24 14:20*	*1*
2-Fluorobiphenyl (Surr)	*85*		*31 - 120*	*12/13/24 19:22*	*12/16/24 14:20*	*1*
2-Fluorophenol (Surr)	*49*		*17 - 120*	*12/13/24 19:22*	*12/16/24 14:20*	*1*
Nitrobenzene-d5 (Surr)	*88*		*27 - 120*	*12/13/24 19:22*	*12/16/24 14:20*	*1*
Phenol-d6 (Surr)	*30*		*10 - 120*	*12/13/24 19:22*	*12/16/24 14:20*	*1*
p-Terphenyl-d14 (Surr)	*88*		*45 - 120*	*12/13/24 19:22*	*12/16/24 14:20*	*1*

Lab Sample ID: LCS 570-513799/2-A
Matrix: Water
Analysis Batch: 514499

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.5		ug/L		67	47 - 120
2-Methylnaphthalene	20.0	15.5		ug/L		77	43 - 120
Acenaphthene	20.0	16.9		ug/L		85	60 - 132
Acenaphthylene	20.0	16.1		ug/L		81	54 - 126
Anthracene	20.0	17.4		ug/L		87	43 - 120
Benzo[a]anthracene	20.0	17.5		ug/L		88	42 - 133
Benzo[a]pyrene	20.0	19.3		ug/L		96	32 - 148
Benzo[b]fluoranthene	20.0	18.6		ug/L		93	42 - 140
Benzo[g,h,i]perylene	20.0	18.0		ug/L		90	1 - 195
Benzo[k]fluoranthene	20.0	19.0		ug/L		95	25 - 146
Chrysene	20.0	17.4		ug/L		87	44 - 140
Dibenz(a,h)anthracene	20.0	19.0		ug/L		95	1 - 200
Fluoranthene	20.0	18.1		ug/L		91	43 - 121
Fluorene	20.0	17.0		ug/L		85	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	19.2		ug/L		96	1 - 151
Naphthalene	20.0	13.9		ug/L		70	36 - 120

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

Lab Sample ID: LCS 570-513799/2-A
Matrix: Water
Analysis Batch: 514499

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513799

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Phenanthrene			20.0	17.5		ug/L		87	65 - 120		
Pyrene			20.0	17.8		ug/L		89	70 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*84*		*28 - 127*
2-Fluorobiphenyl (Surr)	*83*		*31 - 120*
2-Fluorophenol (Surr)	*54*		*17 - 120*
Nitrobenzene-d5 (Surr)	*71*		*27 - 120*
Phenol-d6 (Surr)	*35*		*10 - 120*
p-Terphenyl-d14 (Surr)	*88*		*45 - 120*

Lab Sample ID: LCSD 570-513799/3-A
Matrix: Water
Analysis Batch: 514499

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 513799

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			20.0	16.3		ug/L		81	47 - 120	19	20
2-Methylnaphthalene			20.0	18.1		ug/L		91	43 - 120	16	20
Acenaphthene			20.0	18.1		ug/L		90	60 - 132	7	29
Acenaphthylene			20.0	17.1		ug/L		86	54 - 126	6	45
Anthracene			20.0	18.3		ug/L		91	43 - 120	5	40
Benzo[a]anthracene			20.0	19.0		ug/L		95	42 - 133	8	32
Benzo[a]pyrene			20.0	15.4		ug/L		77	32 - 148	22	43
Benzo[b]fluoranthene			20.0	15.5		ug/L		77	42 - 140	18	43
Benzo[g,h,i]perylene			20.0	16.2		ug/L		81	1 - 195	10	61
Benzo[k]fluoranthene			20.0	15.6		ug/L		78	25 - 146	20	38
Chrysene			20.0	18.4		ug/L		92	44 - 140	6	53
Dibenz(a,h)anthracene			20.0	17.3		ug/L		86	1 - 200	9	75
Fluoranthene			20.0	19.6		ug/L		98	43 - 121	8	40
Fluorene			20.0	19.3		ug/L		96	70 - 120	12	23
Indeno[1,2,3-cd]pyrene			20.0	17.4		ug/L		87	1 - 151	10	60
Naphthalene			20.0	14.5		ug/L		72	36 - 120	4	39
Phenanthrene			20.0	18.3		ug/L		91	65 - 120	4	24
Pyrene			20.0	21.9		ug/L		110	70 - 120	21	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*93*		*28 - 127*
2-Fluorobiphenyl (Surr)	*81*		*31 - 120*
2-Fluorophenol (Surr)	*60*		*17 - 120*
Nitrobenzene-d5 (Surr)	*74*		*27 - 120*
Phenol-d6 (Surr)	*42*		*10 - 120*
p-Terphenyl-d14 (Surr)	*110*		*45 - 120*

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

Lab Sample ID: MB 570-516428/6
Matrix: Water
Analysis Batch: 516428

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			12/20/24 15:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*38 - 134*		*12/20/24 15:16*	*1*

Lab Sample ID: LCS 570-516428/4
Matrix: Water
Analysis Batch: 516428

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	392		ug/L		98	78 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*38 - 134*

Lab Sample ID: LCSD 570-516428/5
Matrix: Water
Analysis Batch: 516428

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			400	402		ug/L		100	78 - 120	3	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*38 - 134*

Lab Sample ID: MRL 570-516428/3
Matrix: Water
Analysis Batch: 516428

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			10.0	11.1		ug/L		111	50 - 150		

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

Lab Sample ID: 380-125825-C-3 MS
Matrix: Water
Analysis Batch: 516428

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	416		ug/L		104	68 - 122		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*38 - 134*

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

Lab Sample ID: 380-125825-C-3 MSD
Matrix: Water
Analysis Batch: 516428

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	393		ug/L		98	68 - 122	6	18

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*38 - 134*

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

Lab Sample ID: MB 570-514170/1-A
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 514170

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25		ug/L		12/15/24 15:02	12/19/24 04:03	1
Motor Oil Range Organics [C24-C36]	<25		25		ug/L		12/15/24 15:02	12/19/24 04:03	1
C8-C18	<25		25		ug/L		12/15/24 15:02	12/19/24 04:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*121*		*60 - 130*	*12/15/24 15:02*	*12/19/24 04:03*	*1*

Lab Sample ID: LCS 570-514170/2-A
Matrix: Water
Analysis Batch: 516952

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514170

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28			1600	1200		ug/L		75	56 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*95*		*60 - 130*

Lab Sample ID: LCSD 570-514170/3-A
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 514170

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28			1600	1480		ug/L		93	56 - 127	21	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*118*		*60 - 130*

Lab Sample ID: MRL 570-514170/4-A
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514170

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28			0.0200	0.0275		mg/L		138	50 - 150		

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

Lab Sample ID: MRL 570-514170/4-A
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514170

Surrogate	MRL %Recovery	MRL Qualifier	Limits
n-Octacosane (Surr)	125		60 - 130

Lab Sample ID: 380-125825-B-3-A MS
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 514170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	<26		1650	1620		ug/L		98	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane (Surr)	125		60 - 130

Lab Sample ID: 380-125825-B-3-B MSD
Matrix: Water
Analysis Batch: 515659

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 514170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1630	1570		ug/L		97	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane (Surr)	123		60 - 130

QC Association Summary

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

Job ID: 380-126200-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 123608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-123608/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-123608/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-123608/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-123608/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-125854-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-126174-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 123803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	123608
MB 380-123608/21-A	Method Blank	Total/NA	Water	525.2	123608
LCS 380-123608/23-A	Lab Control Sample	Total/NA	Water	525.2	123608
LCSD 380-123608/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	123608
MRL 380-123608/22-A	Lab Control Sample	Total/NA	Water	525.2	123608
380-125854-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	123608
380-126174-B-1-A DU	Duplicate	Total/NA	Water	525.2	123608

Prep Batch: 513799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-513799/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-513799/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-513799/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 514499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	513799
MB 570-513799/1-A	Method Blank	Total/NA	Water	625.1 SIM	513799
LCS 570-513799/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	513799
LCSD 570-513799/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	513799

Analysis Batch: 519488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	513799
MB 570-513799/1-A	Method Blank	Total/NA	Water	625.1	513799

GC VOA

Analysis Batch: 516428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-126200-2	TB: HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
MB 570-516428/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-516428/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-516428/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-516428/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-125825-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-125825-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-126200-1
SDG: Weekly

GC Semi VOA

Prep Batch: 514170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-514170/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-514170/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-514170/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-514170/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-125825-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-125825-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 515659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	514170
MB 570-514170/1-A	Method Blank	Total/NA	Water	8015B	514170
LCSD 570-514170/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	514170
MRL 570-514170/4-A	Lab Control Sample	Total/NA	Water	8015B	514170
380-125825-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	514170
380-125825-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	514170

Analysis Batch: 516952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-514170/2-A	Lab Control Sample	Total/NA	Water	8015B	514170

Lab Chronicle

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

Job ID: 380-126200-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-126200-1

Date Collected: 12/10/24 10:00
Matrix: Water
Date Received: 12/12/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			123608	OTM3	EA POM	12/13/24 08:00
Total/NA	Analysis	525.2		1	123803	Q8LA	EA POM	12/15/24 20:26
Total/NA	Prep	625.1			513799	UD4J	EET CAL 4	12/13/24 19:22
Total/NA	Analysis	625.1		1	519488	PQS1	EET CAL 4	01/02/25 17:09
Total/NA	Prep	625.1			513799	UD4J	EET CAL 4	12/13/24 19:22
Total/NA	Analysis	625.1 SIM		1	514499	PQS1	EET CAL 4	12/16/24 18:43
Total/NA	Analysis	8015B GRO LL		1	516428	A9VE	EET CAL 4	12/21/24 00:01
Total/NA	Prep	3510C			514170	H6FE	EET CAL 4	12/15/24 15:02
Total/NA	Analysis	8015B		1	515659	H6FE	EET CAL 4	12/19/24 09:49

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-126200-2

Date Collected: 12/10/24 10:00
Matrix: Water
Date Received: 12/12/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	516428	A9VE	EET CAL 4	12/20/24 23:09

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: 380-126200-1
SDG: Weekly

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	01-31-25

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	Terbuthylazine
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
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	State	3082	07-31-25
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25

Accreditation/Certification Summary

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

Job ID: 380-126200-1
SDG: Weekly

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
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	525-23-159-97150	06-08-26
Washington	State	C916	10-11-25

Method Summary

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

Job ID: 380-126200-1
SDG: Weekly

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: 380-126200-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-126200-1	HALAWA SHAFT VIEWING POOL	Water	12/10/24 10:00	12/12/24 10:01
380-126200-2	TB: HALAWA SHAFT VIEWING POOL	Water	12/10/24 10:00	12/12/24 10:01

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Ryan Greer	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-28005-2757 1
Client Contact: Dr Ron Fenstemacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus com	State of Origin: HI	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested.			
City: Honolulu	TAT Requested (days)			
State, Zip: HI 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes.
R - NaThioSO4
RA - NaThio/HCl
Q - Na2SO3
QA - Na2SO3/HCl
Y - Trizma
I - NH4 Acetate
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625.1, 626.1_SIM	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18	525.2_PREC - (MOD) 525plus Plus TICs	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	RA	Q	QA	Y	I		
Halawa Shaft Viewing Pool	12/10/24	1000	G	Water			2	3	2	2				
TRIP BLANK	12/10/24	1000	G	Water				2						

380-126200 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fedex 7706 8681 3260

	Relinquished by: [redacted]	Date/Time: 12/6/24 1300	Company: HBWS	Received by:	Date/Time: 12/12/24 1001	Company: EEAP
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: (63)(A) 1.2+0.3=1.5 Gel Frozen

Ver: 04/02/2024

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

Chain of Custody Record

eurofins | Env

Loc: 380
126200

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Arada, Rachelle	Carrier Tracking No(s): N/A	COC No: 380-176630.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State Hawaii		Job #: 380-126200-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 12/30/2024			
City: Tustin	TAT Requested (days): N/A			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO_LL_CS/3510C_LL HNL Ranges: C10-C24/C24-C36/C8-C18	8015B_GRO_LL/5030C (MOD) GRO	625.1_SIM/625_Prep (MOD) Extended PAH List	625.1/625_Prep (MOD) Tentatively Identified Compounds (Hold)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
HALAWA SHAFT VIEWING POOL (380-126200-1)	12/10/24	10:00 Hawaiian	G	Water			X	X	X	X	2	MRLs are needed. Confirm any hits >RL.
TB: HALAWA SHAFT VIEWING POOL (380-126200-2)	12/10/24	10:00 Hawaiian	G	Water				X			2	MRLs are needed.

380-126200 Chain of Custody

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *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:	Date/Time:	Company	Received by:	Date/Time:	Company
	12/13/24 1047	GEA		12/13/24 1047	EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 1.3/2.3 Seal

Ver: 10/10/2024

1/3/2025

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-126200-1
SDG Number: Weekly

Login Number: 126200
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
ClO4 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: 380-126200-1
SDG Number: Weekly

Login Number: 126200
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 12/13/24 12:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	