

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

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 6/28/2024 7:45:56 PM

JOB DESCRIPTION

RED-HILL
525.2, 533, 537.1

JOB NUMBER

380-100861-1

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



Generated
6/28/2024 7:45:56 PM

Authorized for release by
Rosalynn Dang, Project Manager
Rosalynn.Dang@et.eurofinsus.com
Designee for
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	13
Surrogate Summary	14
Isotope Dilution Summary	15
QC Sample Results	16
QC Association Summary	38
Lab Chronicle	40
Certification Summary	41
Method Summary	42
Sample Summary	43
Chain of Custody	44
Receipt Checklists	45

Definitions/Glossary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

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: 380-100861-1

Job ID: 380-100861-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-100861-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 6/21/2024 9:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.2°C and 4.8°C.

GC/MS Semi VOA

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

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results.

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: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.037		0.0097	ug/L	1		525.2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

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		06/24/24 08:48	06/25/24 12:25	1
2,4'-DDD	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
2,4'-DDE	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
2,4'-DDT	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
2-Methylnaphthalene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
4,4'-DDD	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
4,4'-DDE	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
4,4'-DDT	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Acenaphthene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Acenaphthylene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Acetochlor	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Alachlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
alpha-BHC	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
alpha-Chlordane	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Anthracene	<0.019		0.019	ug/L		06/24/24 08:48	06/25/24 12:25	1
Atrazine	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Benz(a)anthracene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Benzo[a]pyrene	<0.019		0.019	ug/L		06/24/24 08:48	06/25/24 12:25	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		06/24/24 08:48	06/25/24 12:25	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		06/24/24 08:48	06/25/24 12:25	1
beta-BHC	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		06/24/24 08:48	06/25/24 12:25	1
Bromacil	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Butachlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Butylbenzylphthalate	<0.49		0.49	ug/L		06/24/24 08:48	06/25/24 12:25	1
Chlorobenzilate	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Chloroneb	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Chlorpyrifos	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Chrysene	<0.019		0.019	ug/L		06/24/24 08:48	06/25/24 12:25	1
delta-BHC	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		06/24/24 08:48	06/25/24 12:25	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Dieldrin	0.037		0.0097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Diethylphthalate	<0.49		0.49	ug/L		06/24/24 08:48	06/25/24 12:25	1
Dimethylphthalate	<0.49		0.49	ug/L		06/24/24 08:48	06/25/24 12:25	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		06/24/24 08:48	06/25/24 12:25	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Endosulfan sulfate	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Endrin	<0.0097		0.0097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Endrin aldehyde	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
EPTC	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Fluoranthene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
gamma-Chlordane	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Heptachlor	<0.0097		0.0097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Hexachlorobenzene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Isophorone	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Lindane	<0.0097		0.0097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Malathion	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Methoxychlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Metolachlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Molinate	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Naphthalene	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Parathion	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Phenanthrene	<0.039		0.039	ug/L		06/24/24 08:48	06/25/24 12:25	1
Propachlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Pyrene	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Simazine	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Terbacil	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Terbutylazine	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Thiobencarb	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		06/24/24 08:48	06/25/24 12:25	1
trans-Nonachlor	<0.049		0.049	ug/L		06/24/24 08:48	06/25/24 12:25	1
Trifluralin	<0.097		0.097	ug/L		06/24/24 08:48	06/25/24 12:25	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	06/24/24 08:48	06/25/24 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	06/24/24 08:48	06/25/24 12:25	1
Perylene-d12	97		70 - 130	06/24/24 08:48	06/25/24 12:25	1
Triphenylphosphate	80		70 - 130	06/24/24 08:48	06/25/24 12:25	1

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	2.2		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoropentanoic acid (PFPeA)	2.6		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/24 06:20	06/25/24 23:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	83		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C6 PFDA	91		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C5 PFHxA	94		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C4 PFHpA	95		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C8 PFOA	93		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C9 PFNA	89		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C7 PFUnA	90		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C2 PFDoA	86		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C4 PFBA	96		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C5 PFPeA	105		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C3 PFBS	96		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C3 PFHxS	105		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C8 PFOS	103		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C2-4:2-FTS	129		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C2-6:2-FTS	127		50 - 200	06/25/24 06:20	06/25/24 23:53	1
13C2-8:2-FTS	113		50 - 200	06/25/24 06:20	06/25/24 23:53	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			06/24/24 09:41	06/25/24 03:02	1
13C2 PFHxA	102		70 - 130			06/24/24 09:41	06/25/24 03:02	1
13C2 PFDA	107		70 - 130			06/24/24 09:41	06/25/24 03:02	1
13C3-GenX	99		70 - 130			06/24/24 09:41	06/25/24 03:02	1

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/24 06:20	06/26/24 00:04	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	95		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C6 PFDA	106		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C5 PFHxA	107		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C4 PFHpA	107		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C8 PFOA	107		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C9 PFNA	104		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C7 PFUnA	104		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C2 PFDoA	103		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C4 PFBA	108		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C5 PFPeA	110		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C3 PFBS	98		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C3 PFHxS	111		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C8 PFOS	106		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C2-4:2-FTS	131		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C2-6:2-FTS	131		50 - 200			06/25/24 06:20	06/26/24 00:04	1
13C2-8:2-FTS	114		50 - 200			06/25/24 06:20	06/26/24 00:04	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/24/24 09:41	06/25/24 03:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			06/24/24 09:41	06/25/24 03:12	1
13C2 PFHxA	107		70 - 130			06/24/24 09:41	06/25/24 03:12	1
13C2 PFDA	114		70 - 130			06/24/24 09:41	06/25/24 03:12	1
13C3-GenX	104		70 - 130			06/24/24 09:41	06/25/24 03:12	1

Action Limit Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		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)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

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			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Surrogate Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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)
380-100842-AL-1-A MS	Matrix Spike	96	87	108
380-100861-1	HALAWA WELLS UNITS 1 & 2	95	97	80
380-100861-1 DU	HALAWA WELLS UNITS 1 & 2	101	100	103
LCS 380-96280/23-A	Lab Control Sample	97	91	103
LCSD 380-96280/24-A	Lab Control Sample Dup	96	98	103
MB 380-96280/21-A	Method Blank	97	98	105
MRL 380-96280/22-A	Lab Control Sample	97	92	109

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-100791-B-1-A MSD	Matrix Spike Duplicate	109	108	111	101
380-100791-C-1-A MS	Matrix Spike	109	107	111	102
380-100861-1	HALAWA WELLS UNITS 1 & 2	103	102	107	99
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	106	107	114	104
LCS 380-96290/24-A	Lab Control Sample	104	110	110	105
MBL 380-96290/22-A	Method Blank	108	115	117	106
MRL 380-96290/23-A	Lab Control Sample	111	111	117	106

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

GenX = 13C3-GenX

Isotope Dilution Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-100861-1	HALAWA WELLS UNITS 1 & 2	83	91	94	95	93	89	90	86
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	95	106	107	107	107	104	104	103
380-101125-E-1-A MS	Matrix Spike	84	94	93	99	97	90	93	94
380-101125-F-1-A MSD	Matrix Spike Duplicate	83	86	90	90	89	84	85	85
LCS 380-96387/22-A	Lab Control Sample	98	107	107	107	107	103	104	104
MBL 380-96387/20-A	Method Blank	89	100	100	103	100	96	96	99
MRL 380-96387/21-A	Lab Control Sample	95	104	107	109	109	104	102	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-100861-1	HALAWA WELLS UNITS 1 & 2	96	105	96	105	103	129	127	113
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	108	110	98	111	106	131	131	114
380-101125-E-1-A MS	Matrix Spike	97	103	99	107	102	140	132	115
380-101125-F-1-A MSD	Matrix Spike Duplicate	94	106	99	103	97	131	132	108
LCS 380-96387/22-A	Lab Control Sample	108	110	99	111	105	127	130	113
MBL 380-96387/20-A	Method Blank	103	103	89	98	96	119	120	104
MRL 380-96387/21-A	Lab Control Sample	106	112	98	105	103	134	128	111

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- PFDoA = 13C2 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- 42FTS = 13C2-4:2-FTS
- 62FTS = 13C2-6:2-FTS
- 82FTS = 13C2-8:2-FTS

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: MB 380-96280/21-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96280

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2,4'-DDD	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2,4'-DDE	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2,4'-DDT	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
2-Methylnaphthalene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
4,4'-DDD	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
4,4'-DDE	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
4,4'-DDT	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Acenaphthene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Acenaphthylene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Acetochlor	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Alachlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
alpha-BHC	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
alpha-Chlordane	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Anthracene	<0.020		0.020	ug/L		06/24/24 08:48	06/25/24 09:44	1
Atrazine	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Benz(a)anthracene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Benzo[a]pyrene	<0.020		0.020	ug/L		06/24/24 08:48	06/25/24 09:44	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		06/24/24 08:48	06/25/24 09:44	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		06/24/24 08:48	06/25/24 09:44	1
beta-BHC	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		06/24/24 08:48	06/25/24 09:44	1
Bromacil	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Butachlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Butylbenzylphthalate	<0.50		0.50	ug/L		06/24/24 08:48	06/25/24 09:44	1
Chlorobenzilate	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Chloroneb	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Chlorpyrifos	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Chrysene	<0.020		0.020	ug/L		06/24/24 08:48	06/25/24 09:44	1
delta-BHC	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		06/24/24 08:48	06/25/24 09:44	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Dieldrin	<0.0099		0.0099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Diethylphthalate	<0.50		0.50	ug/L		06/24/24 08:48	06/25/24 09:44	1
Dimethylphthalate	<0.50		0.50	ug/L		06/24/24 08:48	06/25/24 09:44	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		06/24/24 08:48	06/25/24 09:44	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Endosulfan sulfate	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Endrin	<0.0099		0.0099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Endrin aldehyde	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
EPTC	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: MB 380-96280/21-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96280

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Fluorene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
gamma-Chlordane	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Heptachlor	<0.0099		0.0099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Hexachlorobenzene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Isophorone	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Lindane	<0.0099		0.0099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Malathion	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Methoxychlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Metolachlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Molinate	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Naphthalene	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Parathion	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Phenanthrene	<0.040		0.040	ug/L		06/24/24 08:48	06/25/24 09:44	1
Propachlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Pyrene	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Simazine	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Terbacil	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Terbutylazine	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Thiobencarb	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		06/24/24 08:48	06/25/24 09:44	1
trans-Nonachlor	<0.050		0.050	ug/L		06/24/24 08:48	06/25/24 09:44	1
Trifluralin	<0.099		0.099	ug/L		06/24/24 08:48	06/25/24 09:44	1

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	06/24/24 08:48	06/25/24 09:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	06/24/24 08:48	06/25/24 09:44	1
Perylene-d12	98		70 - 130	06/24/24 08:48	06/25/24 09:44	1
Triphenylphosphate	105		70 - 130	06/24/24 08:48	06/25/24 09:44	1

Lab Sample ID: LCS 380-96280/23-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.98	2.04		ug/L		103	70 - 130
2,4'-DDD	1.98	2.10		ug/L		106	70 - 130
2,4'-DDE	1.98	2.14		ug/L		108	70 - 130
2,4'-DDT	1.98	2.04		ug/L		103	70 - 130
2,4-Dinitrotoluene	1.98	1.87		ug/L		94	70 - 130
2,6-Dinitrotoluene	1.98	1.80		ug/L		91	70 - 130
2-Methylnaphthalene	1.98	2.06		ug/L		104	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: LCS 380-96280/23-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.98	1.96		ug/L		99	70 - 130
4,4'-DDE	1.98	2.00		ug/L		101	70 - 130
4,4'-DDT	1.98	1.94		ug/L		98	70 - 130
Acenaphthene	1.98	2.03		ug/L		102	70 - 130
Acenaphthylene	1.98	2.06		ug/L		104	70 - 130
Acetochlor	1.98	2.25		ug/L		114	70 - 130
Alachlor	1.98	2.08		ug/L		105	70 - 130
alpha-BHC	1.98	1.99		ug/L		101	70 - 130
alpha-Chlordane	1.98	2.06		ug/L		104	70 - 130
Anthracene	1.98	2.13		ug/L		108	70 - 130
Atrazine	1.98	2.21		ug/L		112	70 - 130
Benz(a)anthracene	1.98	1.98		ug/L		100	70 - 130
Benzo[a]pyrene	1.98	1.98		ug/L		100	70 - 130
Benzo[b]fluoranthene	1.98	2.04		ug/L		103	70 - 130
Benzo[g,h,i]perylene	1.98	2.06		ug/L		104	70 - 130
Benzo[k]fluoranthene	1.98	2.07		ug/L		104	70 - 130
beta-BHC	1.98	2.11		ug/L		106	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	2.16		ug/L		109	70 - 130
Bromacil	1.98	1.79		ug/L		91	70 - 130
Butachlor	1.98	2.10		ug/L		106	70 - 130
Butylbenzylphthalate	1.98	2.08		ug/L		105	70 - 130
Chlorobenzilate	1.98	1.52		ug/L		77	70 - 130
Chloroneb	1.98	2.24		ug/L		113	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.02		ug/L		102	70 - 130
Chlorpyrifos	1.98	2.05		ug/L		103	70 - 130
Chrysene	1.98	1.94		ug/L		98	70 - 130
delta-BHC	1.98	2.07		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.01		ug/L		101	70 - 130
Dibenz(a,h)anthracene	1.98	1.99		ug/L		100	70 - 130
Diclorvos (DDVP)	1.98	2.15		ug/L		108	70 - 130
Dieldrin	1.98	1.98		ug/L		100	70 - 130
Diethylphthalate	1.98	2.05		ug/L		103	70 - 130
Dimethylphthalate	1.98	2.09		ug/L		105	70 - 130
Di-n-butyl phthalate	3.97	4.12		ug/L		104	70 - 130
Di-n-octyl phthalate	1.98	1.85		ug/L		93	70 - 130
Endosulfan I (Alpha)	1.98	2.07		ug/L		105	70 - 130
Endosulfan II (Beta)	1.98	2.04		ug/L		103	70 - 130
Endosulfan sulfate	1.98	1.99		ug/L		100	70 - 130
Endrin	1.98	1.82		ug/L		92	70 - 130
Endrin aldehyde	1.98	1.18		ug/L		60	60 - 130
EPTC	1.98	1.99		ug/L		101	70 - 130
Fluoranthene	1.98	2.16		ug/L		109	70 - 130
Fluorene	1.98	2.10		ug/L		106	70 - 130
gamma-Chlordane	1.98	2.11		ug/L		106	70 - 130
Heptachlor	1.98	1.90		ug/L		96	70 - 130
Heptachlor epoxide (isomer B)	1.98	1.98		ug/L		100	70 - 130
Hexachlorobenzene	1.98	1.83		ug/L		92	70 - 130
Hexachlorocyclopentadiene	1.98	1.92		ug/L		97	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	2.05		ug/L		103	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: LCS 380-96280/23-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.98	2.16		ug/L		109	70 - 130
Lindane	1.98	2.05		ug/L		103	70 - 130
Malathion	1.98	2.04		ug/L		103	70 - 130
Methoxychlor	1.98	1.91		ug/L		96	70 - 130
Metolachlor	1.98	2.28		ug/L		115	70 - 130
Molinate	1.98	2.07		ug/L		105	70 - 130
Naphthalene	1.98	1.94		ug/L		98	70 - 130
Parathion	1.98	2.02		ug/L		102	70 - 130
Pendimethalin (Penoxaline)	1.98	1.97		ug/L		99	70 - 130
Phenanthrene	1.98	2.01		ug/L		101	70 - 130
Propachlor	1.98	2.15		ug/L		109	70 - 130
Pyrene	1.98	2.04		ug/L		103	70 - 130
Simazine	1.98	2.16		ug/L		109	70 - 130
Terbacil	1.98	2.00		ug/L		101	70 - 130
Terbutylazine	1.98	2.20		ug/L		111	70 - 130
Thiobencarb	1.98	2.29		ug/L		116	70 - 130
trans-Nonachlor	1.98	2.14		ug/L		108	70 - 130
Trifluralin	1.98	1.76		ug/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: LCSD 380-96280/24-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.98	2.02		ug/L		102	70 - 130	1	20
2,4'-DDD	1.98	2.17		ug/L		109	70 - 130	3	20
2,4'-DDE	1.98	2.17		ug/L		109	70 - 130	1	20
2,4'-DDT	1.98	2.08		ug/L		105	70 - 130	2	20
2,4-Dinitrotoluene	1.98	2.03		ug/L		102	70 - 130	8	20
2,6-Dinitrotoluene	1.98	1.88		ug/L		95	70 - 130	5	20
2-Methylnaphthalene	1.98	2.06		ug/L		104	70 - 130	0	20
4,4'-DDD	1.98	1.99		ug/L		100	70 - 130	1	20
4,4'-DDE	1.98	2.05		ug/L		104	70 - 130	3	20
4,4'-DDT	1.98	1.99		ug/L		100	70 - 130	2	20
Acenaphthene	1.98	2.06		ug/L		104	70 - 130	1	20
Acenaphthylene	1.98	2.12		ug/L		107	70 - 130	3	20
Acetochlor	1.98	2.32		ug/L		117	70 - 130	3	20
Alachlor	1.98	2.16		ug/L		109	70 - 130	4	20
alpha-BHC	1.98	2.03		ug/L		102	70 - 130	2	20
alpha-Chlordane	1.98	2.17		ug/L		109	70 - 130	5	20
Anthracene	1.98	2.17		ug/L		109	70 - 130	2	20
Atrazine	1.98	2.25		ug/L		114	70 - 130	2	20
Benz(a)anthracene	1.98	2.07		ug/L		104	70 - 130	4	20

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: LCSD 380-96280/24-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Benzo[a]pyrene	1.98	2.04		ug/L		103	70 - 130	3	20	
Benzo[b]fluoranthene	1.98	2.00		ug/L		101	70 - 130	2	20	
Benzo[g,h,i]perylene	1.98	2.27		ug/L		114	70 - 130	10	20	
Benzo[k]fluoranthene	1.98	2.02		ug/L		102	70 - 130	2	20	
beta-BHC	1.98	2.19		ug/L		110	70 - 130	4	20	
Bis(2-ethylhexyl) phthalate	1.98	2.08		ug/L		105	70 - 130	4	20	
Bromacil	1.98	1.96		ug/L		99	70 - 130	9	20	
Butachlor	1.98	2.17		ug/L		110	70 - 130	4	20	
Butylbenzylphthalate	1.98	2.14		ug/L		108	70 - 130	3	20	
Chlorobenzilate	1.98	1.48		ug/L		75	70 - 130	3	20	
Chloroneb	1.98	2.04		ug/L		103	70 - 130	10	20	
Chlorothalonil (Draconil, Bravo)	1.98	2.17		ug/L		109	70 - 130	7	20	
Chlorpyrifos	1.98	2.13		ug/L		107	70 - 130	4	20	
Chrysene	1.98	1.98		ug/L		100	70 - 130	2	20	
delta-BHC	1.98	2.12		ug/L		107	70 - 130	2	20	
Di(2-ethylhexyl)adipate	1.98	2.04		ug/L		103	70 - 130	2	20	
Dibenz(a,h)anthracene	1.98	2.12		ug/L		107	70 - 130	6	20	
Diclorvos (DDVP)	1.98	2.16		ug/L		109	70 - 130	1	20	
Dieldrin	1.98	2.03		ug/L		103	70 - 130	3	20	
Diethylphthalate	1.98	2.11		ug/L		106	70 - 130	3	20	
Dimethylphthalate	1.98	2.16		ug/L		109	70 - 130	3	20	
Di-n-butyl phthalate	3.97	4.27		ug/L		108	70 - 130	4	20	
Di-n-octyl phthalate	1.98	1.96		ug/L		99	70 - 130	6	20	
Endosulfan I (Alpha)	1.98	2.17		ug/L		109	70 - 130	4	20	
Endosulfan II (Beta)	1.98	2.16		ug/L		109	70 - 130	5	20	
Endosulfan sulfate	1.98	2.01		ug/L		101	70 - 130	1	20	
Endrin	1.98	1.74		ug/L		88	70 - 130	4	20	
Endrin aldehyde	1.98	1.22		ug/L		62	60 - 130	3	20	
EPTC	1.98	2.03		ug/L		102	70 - 130	2	20	
Fluoranthene	1.98	2.23		ug/L		112	70 - 130	3	20	
Fluorene	1.98	2.13		ug/L		107	70 - 130	1	20	
gamma-Chlordane	1.98	2.17		ug/L		110	70 - 130	3	20	
Heptachlor	1.98	1.94		ug/L		98	70 - 130	2	20	
Heptachlor epoxide (isomer B)	1.98	2.05		ug/L		103	70 - 130	3	20	
Hexachlorobenzene	1.98	1.84		ug/L		93	70 - 130	0	20	
Hexachlorocyclopentadiene	1.98	1.85		ug/L		93	70 - 130	4	20	
Indeno[1,2,3-cd]pyrene	1.98	2.20		ug/L		111	70 - 130	7	20	
Isophorone	1.98	2.16		ug/L		109	70 - 130	0	20	
Lindane	1.98	2.18		ug/L		110	70 - 130	6	20	
Malathion	1.98	2.12		ug/L		107	70 - 130	4	20	
Methoxychlor	1.98	1.96		ug/L		99	70 - 130	3	20	
Metolachlor	1.98	2.37		ug/L		119	70 - 130	4	20	
Molinate	1.98	2.11		ug/L		107	70 - 130	2	20	
Naphthalene	1.98	1.94		ug/L		98	70 - 130	0	20	
Parathion	1.98	2.10		ug/L		106	70 - 130	4	20	
Pendimethalin (Penoxaline)	1.98	2.02		ug/L		102	70 - 130	3	20	
Phenanthrene	1.98	2.03		ug/L		102	70 - 130	1	20	
Propachlor	1.98	2.20		ug/L		111	70 - 130	2	20	
Pyrene	1.98	2.09		ug/L		105	70 - 130	2	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: LCSD 380-96280/24-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.98	2.26		ug/L		114	70 - 130	4	20
Terbacil	1.98	2.22		ug/L		112	70 - 130	10	20
Terbuthylazine	1.98	2.31		ug/L		117	70 - 130	5	20
Thiobencarb	1.98	2.38		ug/L		120	70 - 130	4	20
trans-Nonachlor	1.98	2.19		ug/L		111	70 - 130	3	20
Trifluralin	1.98	1.78		ug/L		90	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: MRL 380-96280/22-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0976	0.104		ug/L		107	50 - 150
2,4'-DDD	0.0976	0.0991		ug/L		102	50 - 150
2,4'-DDE	0.0976	0.0965	J	ug/L		99	50 - 150
2,4'-DDT	0.0976	0.114		ug/L		117	50 - 150
2,4-Dinitrotoluene	0.0976	0.0965	J	ug/L		99	50 - 150
2,6-Dinitrotoluene	0.0976	0.0936	J	ug/L		96	50 - 150
2-Methylnaphthalene	0.0976	0.101		ug/L		103	50 - 150
4,4'-DDD	0.0976	0.114		ug/L		117	50 - 150
4,4'-DDE	0.0976	0.0985		ug/L		101	50 - 150
4,4'-DDT	0.0976	0.107		ug/L		109	50 - 150
Acenaphthene	0.0976	0.0940	J	ug/L		96	50 - 150
Acenaphthylene	0.0976	0.0937	J	ug/L		96	50 - 150
Acetochlor	0.0976	0.108		ug/L		111	50 - 150
Alachlor	0.0488	0.0448	J	ug/L		92	50 - 150
alpha-BHC	0.0976	0.104		ug/L		107	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		101	50 - 150
Anthracene	0.0195	0.0231		ug/L		118	50 - 150
Atrazine	0.0488	0.0487	J	ug/L		100	50 - 150
Benz(a)anthracene	0.0488	0.0494		ug/L		101	50 - 150
Benzo[a]pyrene	0.0195	0.0156	J	ug/L		80	50 - 150
Benzo[b]fluoranthene	0.0195	0.0183	J	ug/L		94	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0389	J	ug/L		80	50 - 150
Benzo[k]fluoranthene	0.0195	0.0185	J	ug/L		95	50 - 150
beta-BHC	0.0976	0.109		ug/L		112	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.638		ug/L		109	50 - 150
Bromacil	0.0976	0.105		ug/L		108	50 - 150
Butachlor	0.0488	0.0645		ug/L		132	50 - 150
Butylbenzylphthalate	0.488	0.496		ug/L		102	50 - 150
Chlorobenzilate	0.0976	0.0702	J	ug/L		72	50 - 150
Chloroneb	0.0976	0.0941	J	ug/L		96	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0976	0.109		ug/L		111	50 - 150

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: MRL 380-96280/22-A
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0488	0.0568		ug/L		116	50 - 150
Chrysene	0.0195	0.0220		ug/L		113	50 - 150
delta-BHC	0.0976	0.123		ug/L		126	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.559	J	ug/L		95	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0443	J	ug/L		91	50 - 150
Diclorvos (DDVP)	0.0488	0.0639		ug/L		131	50 - 150
Dieldrin	0.00976	0.0126		ug/L		129	50 - 150
Diethylphthalate	0.488	0.497		ug/L		102	50 - 150
Dimethylphthalate	0.488	0.509		ug/L		104	50 - 150
Di-n-butyl phthalate	0.488	0.490	J	ug/L		100	49 - 243
Di-n-octyl phthalate	0.0976	0.100		ug/L		103	50 - 150
Endosulfan I (Alpha)	0.0976	0.100		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0976	0.112		ug/L		115	50 - 150
Endosulfan sulfate	0.0976	0.123		ug/L		127	50 - 150
Endrin	0.00976	0.0101		ug/L		104	50 - 150
Endrin aldehyde	0.0976	<0.082		ug/L		80	50 - 150
EPTC	0.0976	0.0828	J	ug/L		85	50 - 150
Fluoranthene	0.0976	0.0982		ug/L		101	50 - 150
Fluorene	0.0488	<0.049		ug/L		99	50 - 150
gamma-Chlordane	0.0244	0.0229	J	ug/L		94	50 - 150
Heptachlor	0.00976	0.0126		ug/L		130	50 - 150
Heptachlor epoxide (isomer B)	0.00976	0.0120		ug/L		123	50 - 150
Hexachlorobenzene	0.0488	0.0480	J	ug/L		98	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0430	J	ug/L		88	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0472	J	ug/L		97	50 - 150
Isophorone	0.0976	0.124		ug/L		127	50 - 150
Lindane	0.00976	0.0110		ug/L		113	50 - 150
Malathion	0.0976	0.102		ug/L		105	50 - 150
Methoxychlor	0.0488	0.0585		ug/L		120	50 - 150
Metolachlor	0.0488	0.0530		ug/L		109	50 - 150
Molinate	0.0976	0.0994		ug/L		102	50 - 150
Naphthalene	0.0976	0.104		ug/L		106	50 - 150
Parathion	0.0976	0.0873	J	ug/L		90	50 - 150
Pendimethalin (Penoxaline)	0.0976	0.0903	J	ug/L		93	50 - 150
Phenanthrene	0.0390	0.0422		ug/L		108	50 - 150
Propachlor	0.0488	0.0481	J	ug/L		99	50 - 150
Pyrene	0.0488	0.0503		ug/L		103	50 - 150
Simazine	0.0488	0.0458	J	ug/L		94	50 - 150
Terbacil	0.0976	0.0934	J	ug/L		96	50 - 150
Terbutylazine	0.0976	0.0970	J	ug/L		99	50 - 150
Thiobencarb	0.0976	0.111		ug/L		114	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		102	50 - 150
Trifluralin	0.0976	0.0906	J	ug/L		93	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	109		70 - 130

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: 380-100842-AL-1-A MS
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.96	2.04		ug/L		104	70 - 130
2,4'-DDD	<0.098		1.96	2.07		ug/L		106	70 - 130
2,4'-DDE	<0.098		1.96	1.97		ug/L		101	70 - 130
2,4'-DDT	<0.098		1.96	1.86		ug/L		95	70 - 130
2,4-Dinitrotoluene	<0.098		1.96	1.95		ug/L		99	70 - 130
2,6-Dinitrotoluene	<0.098		1.96	1.84		ug/L		94	70 - 130
2-Methylnaphthalene	<0.098		1.96	2.08		ug/L		106	70 - 130
4,4'-DDD	<0.098		1.96	1.86		ug/L		95	70 - 130
4,4'-DDE	<0.098		1.96	1.90		ug/L		97	70 - 130
4,4'-DDT	<0.098		1.96	1.79		ug/L		92	70 - 130
Acenaphthene	<0.098		1.96	2.07		ug/L		105	70 - 130
Acenaphthylene	<0.098		1.96	2.13		ug/L		109	70 - 130
Acetochlor	<0.098		1.96	2.10		ug/L		107	70 - 130
Alachlor	<0.049		1.96	1.97		ug/L		101	70 - 130
alpha-BHC	<0.098		1.96	2.07		ug/L		106	70 - 130
alpha-Chlordane	<0.049		1.96	2.28		ug/L		116	70 - 130
Anthracene	<0.020		1.96	1.62		ug/L		83	70 - 130
Atrazine	<0.049		1.96	1.85		ug/L		94	70 - 130
Benz(a)anthracene	<0.049		1.96	1.74		ug/L		89	70 - 130
Benzo[a]pyrene	<0.020		1.96	1.78		ug/L		91	70 - 130
Benzo[b]fluoranthene	<0.020		1.96	2.03		ug/L		104	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	1.98		ug/L		101	70 - 130
Benzo[k]fluoranthene	<0.020		1.96	2.09		ug/L		107	70 - 130
beta-BHC	<0.098		1.96	2.21		ug/L		113	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.96	2.11		ug/L		108	70 - 130
Bromacil	<0.098		1.96	1.98		ug/L		101	70 - 130
Butachlor	<0.049		1.96	1.96		ug/L		100	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.12		ug/L		108	70 - 130
Chlorobenzilate	<0.098		1.96	1.55		ug/L		79	70 - 130
Chloroneb	<0.098		1.96	2.06		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.96	2.14		ug/L		109	70 - 130
Chlorpyrifos	<0.049		1.96	1.99		ug/L		102	70 - 130
Chrysene	<0.020		1.96	1.98		ug/L		101	70 - 130
delta-BHC	<0.098		1.96	2.07		ug/L		106	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.96	1.72		ug/L		88	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	1.86		ug/L		95	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.21		ug/L		113	70 - 130
Dieldrin	<0.0098		1.96	1.91		ug/L		97	70 - 130
Diethylphthalate	<0.49		1.96	2.11		ug/L		108	70 - 130
Dimethylphthalate	<0.49		1.96	2.14		ug/L		109	70 - 130
Di-n-butyl phthalate	<0.98		3.92	4.22		ug/L		108	70 - 130
Di-n-octyl phthalate	<0.098		1.96	1.90		ug/L		97	70 - 130
Endosulfan I (Alpha)	<0.098		1.96	2.08		ug/L		106	70 - 130
Endosulfan II (Beta)	<0.098		1.96	1.92		ug/L		98	70 - 130
Endosulfan sulfate	<0.098		1.96	1.63		ug/L		83	70 - 130
Endrin	<0.0098	F1	1.96	1.20	F1	ug/L		61	70 - 130
Endrin aldehyde	<0.098	F1	1.96	0.837	F1	ug/L		43	60 - 130
EPTC	<0.098		1.96	1.98		ug/L		101	70 - 130

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: 380-100842-AL-1-A MS
Matrix: Water
Analysis Batch: 96388

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.098		1.96	2.21		ug/L		113	70 - 130
Fluorene	<0.049		1.96	2.16		ug/L		110	70 - 130
gamma-Chlordane	<0.049		1.96	2.21		ug/L		113	70 - 130
Heptachlor	<0.0098		1.96	1.80		ug/L		92	70 - 130
Heptachlor epoxide (isomer B)	<0.0098		1.96	2.19		ug/L		112	70 - 130
Hexachlorobenzene	<0.049		1.96	2.04		ug/L		104	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	2.00		ug/L		102	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.96	1.97		ug/L		100	70 - 130
Isophorone	<0.098		1.96	2.04		ug/L		104	70 - 130
Lindane	<0.0098		1.96	2.14		ug/L		109	70 - 130
Malathion	<0.098		1.96	2.05		ug/L		105	70 - 130
Methoxychlor	<0.049		1.96	2.24		ug/L		115	70 - 130
Metolachlor	<0.049		1.96	2.28		ug/L		117	70 - 130
Molinate	<0.098		1.96	2.05		ug/L		105	70 - 130
Naphthalene	<0.098		1.96	1.92		ug/L		98	70 - 130
Parathion	<0.098		1.96	2.04		ug/L		104	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.96	1.91		ug/L		98	70 - 130
Phenanthrene	<0.039		1.96	2.05		ug/L		105	70 - 130
Propachlor	<0.049		1.96	2.22		ug/L		113	70 - 130
Pyrene	<0.049		1.96	2.09		ug/L		107	70 - 130
Simazine	<0.049		1.96	1.96		ug/L		100	70 - 130
Terbacil	<0.098		1.96	1.93		ug/L		99	70 - 130
Terbutylazine	<0.098		1.96	1.99		ug/L		101	70 - 130
Thiobencarb	<0.098		1.96	2.27		ug/L		116	70 - 130
trans-Nonachlor	<0.049		1.96	2.07		ug/L		106	70 - 130
Trifluralin	<0.098		1.96	1.78		ug/L		91	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	108		70 - 130

Lab Sample ID: 380-100861-1 DU
Matrix: Water
Analysis Batch: 96388

Client Sample ID: HALAWA WELLS UNITS 1 & 2
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
1-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20	
2,4'-DDD	<0.097		<0.098		ug/L		NC	20	
2,4'-DDE	<0.097		<0.098		ug/L		NC	20	
2,4'-DDT	<0.097		<0.098		ug/L		NC	20	
2,4-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20	
2,6-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20	
2-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20	
4,4'-DDD	<0.097		<0.098		ug/L		NC	20	
4,4'-DDE	<0.097		<0.098		ug/L		NC	20	
4,4'-DDT	<0.097		<0.098		ug/L		NC	20	
Acenaphthene	<0.097		<0.098		ug/L		NC	20	

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: 380-100861-1 DU
Matrix: Water
Analysis Batch: 96388

Client Sample ID: HALAWA WELLS UNITS 1 & 2
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Acenaphthylene	<0.097		<0.098		ug/L		NC	20
Acetochlor	<0.097		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.097		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.019		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.020		ug/L		NC	20
beta-BHC	<0.097		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.59		ug/L		NC	20
Bromacil	<0.097		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.097		<0.098		ug/L		NC	20
Chloroneb	<0.097		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.019		<0.020		ug/L		NC	20
delta-BHC	<0.097		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	0.037		0.0525	F3	ug/L		34	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.098		ug/L		NC	20
Endrin	<0.0097		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.097		<0.098		ug/L		NC	20
EPTC	<0.097		<0.098		ug/L		NC	20
Fluoranthene	<0.097		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0097		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		0.0111		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	<0.097		<0.098		ug/L		NC	20
Lindane	<0.0097		<0.0098		ug/L		NC	20
Malathion	<0.097		<0.098		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

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

Lab Sample ID: 380-100861-1 DU
Matrix: Water
Analysis Batch: 96388

Client Sample ID: HALAWA WELLS UNITS 1 & 2
Prep Type: Total/NA
Prep Batch: 96280

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.097		<0.098		ug/L		NC	20
Naphthalene	<0.097		<0.098		ug/L		NC	20
Parathion	<0.097		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.098		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	<0.097		<0.098		ug/L		NC	20
Terbutylazine	<0.097		<0.098		ug/L		NC	20
Thiobencarb	<0.097		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.097		<0.098		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	103		70 - 130

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 380-96387/20-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96387

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 380-96387/20-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96387

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/25/24 06:20	06/25/24 22:17	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C6 PFDA	100		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C5 PFHxA	100		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C4 PFHpA	103		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C8 PFOA	100		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C9 PFNA	96		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C7 PFUnA	96		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C2 PFDoA	99		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C4 PFBA	103		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C5 PFPeA	103		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C3 PFBS	89		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C3 PFHxS	98		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C8 PFOS	96		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C2-4:2-FTS	119		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C2-6:2-FTS	120		50 - 200	06/25/24 06:20	06/25/24 22:17	1
13C2-8:2-FTS	104		50 - 200	06/25/24 06:20	06/25/24 22:17	1

Lab Sample ID: LCS 380-96387/22-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.0	55.4		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.0	57.0		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.0	55.2		ng/L		92	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.0	58.6		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-96387/22-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	60.0	58.3		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	60.0	56.6		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	60.0	60.6		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.0	55.5		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.0	54.1		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	60.0	56.5		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	60.0	59.3		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.0	56.2		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	60.0	57.1		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.0	59.1		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	60.0	55.6		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.0	58.2		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.0	57.2		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.0	56.1		ng/L		93	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.0	50.7		ng/L		85	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.0	56.4		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.0	54.3		ng/L		91	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.0	52.3		ng/L		87	70 - 130
Perfluoropentanoic acid (PFPeA)	60.0	53.5		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.0	59.0		ng/L		98	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.0	53.4		ng/L		89	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	98		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	107		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	127		50 - 200
13C2-6:2-FTS	130		50 - 200

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-96387/22-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96387

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C2-8:2-FTS	113		50 - 200

Lab Sample ID: MRL 380-96387/21-A
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96387

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.90	J	ng/L		95	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.96	J	ng/L		98	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.84	J	ng/L		92	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.01	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	1.91	J	ng/L		96	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.89	J	ng/L		95	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.05	J	ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.94	J	ng/L		97	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.03	J	ng/L		102	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.92	J	ng/L		96	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.13	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.03	J	ng/L		101	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.12	J	ng/L		106	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.88	J	ng/L		94	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	1.95	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.76	J	ng/L		88	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.76	J	ng/L		88	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.96	J	ng/L		98	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.96	J	ng/L		98	50 - 150

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

<i>Isotope Dilution</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C3 HFPO-DA	95		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	107		50 - 200
13C4 PFHpA	109		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	98		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	103		50 - 200
13C2-4:2-FTS	134		50 - 200
13C2-6:2-FTS	128		50 - 200
13C2-8:2-FTS	111		50 - 200

Lab Sample ID: 380-101125-E-1-A MS
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 96387

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	60.3		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	60.7		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	52.6		ng/L		87	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.3		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	4.1		60.4	67.5		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	62.0		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.8		60.4	59.2		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	9.2		60.4	68.5		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	5.8		60.4	64.2		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	62.3		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	13		60.4	73.3		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	2.8		60.4	60.8		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	62.1		ng/L		103	70 - 130
Perfluorobutanoic acid (PFBA)	3.6		60.4	61.9		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	63.1		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	58.4		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	63.3		ng/L		105	70 - 130

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-101125-F-1-A MSD
Matrix: Water
Analysis Batch: 96484

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 96387

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroheptanoic acid (PFHpA)	2.8		60.2	62.9		ng/L		100	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	9.2		60.2	68.4		ng/L		98	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	5.8		60.2	68.0		ng/L		103	70 - 130	6	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	64.8		ng/L		107	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	13		60.2	76.3		ng/L		105	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	2.8		60.2	64.5		ng/L		102	70 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	65.2		ng/L		108	70 - 130	5	30
Perfluorobutanoic acid (PFBA)	3.6		60.2	65.1		ng/L		102	70 - 130	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	61.0		ng/L		101	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	62.9		ng/L		104	70 - 130	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	61.4		ng/L		102	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	57.2		ng/L		95	70 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	61.2		ng/L		102	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	62.6		ng/L		104	70 - 130	6	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	57.5		ng/L		96	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	7.1		60.2	66.5		ng/L		99	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	66.1		ng/L		110	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	62.0		ng/L		101	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	83		50 - 200
13C6 PFDA	86		50 - 200
13C5 PFHxA	90		50 - 200
13C4 PFHpA	90		50 - 200
13C8 PFOA	89		50 - 200
13C9 PFNA	84		50 - 200
13C7 PFUnA	85		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	94		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	103		50 - 200
13C8 PFOS	97		50 - 200
13C2-4:2-FTS	131		50 - 200
13C2-6:2-FTS	132		50 - 200
13C2-8:2-FTS	108		50 - 200

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 380-96290/22-A
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96290

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.30		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/24/24 09:41	06/25/24 01:05	1
Surrogate	%Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			06/24/24 09:41	06/25/24 01:05	1
13C2 PFHxA	115		70 - 130			06/24/24 09:41	06/25/24 01:05	1
13C2 PFDA	117		70 - 130			06/24/24 09:41	06/25/24 01:05	1
13C3-GenX	106		70 - 130			06/24/24 09:41	06/25/24 01:05	1

Lab Sample ID: LCS 380-96290/24-A
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.2	54.1		ng/L		108	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.2	55.9		ng/L		111	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.2	54.9		ng/L		109	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.2	53.9		ng/L		107	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.2	54.1		ng/L		108	70 - 130
Perfluorohexanoic acid (PFHxA)	50.2	53.9		ng/L		107	70 - 130
Perfluorododecanoic acid (PFDoA)	50.2	54.1		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	50.2	55.2		ng/L		110	70 - 130
Perfluorodecanoic acid (PFDA)	50.2	54.5		ng/L		109	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LCS 380-96290/24-A
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanesulfonic acid (PFHxS)	50.2	57.2		ng/L		114	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.2	53.0		ng/L		106	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.2	57.8		ng/L		115	70 - 130
Perfluorononanoic acid (PFNA)	50.2	55.8		ng/L		111	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.2	53.7		ng/L		107	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	50.2	52.9		ng/L		105	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.2	56.7		ng/L		113	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.2	52.5		ng/L		105	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.2	55.6		ng/L		111	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	104		70 - 130				
13C2 PFHxA	110		70 - 130				
13C2 PFDA	110		70 - 130				
13C3-GenX	105		70 - 130				

Lab Sample ID: MRL 380-96290/23-A
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96290

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.32	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.32	J	ng/L		116	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.30	J	ng/L		114	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.36	J	ng/L		118	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.27	J	ng/L		113	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.41	J	ng/L		120	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.31	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.49	J	ng/L		124	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.30	J	ng/L		114	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.22	J	ng/L		111	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MRL 380-96290/23-A
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96290

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.15	J	ng/L		107	50 - 150	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.25	J	ng/L		112	50 - 150	
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.07	J	ng/L		103	50 - 150	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.34	J	ng/L		116	50 - 150	
Surrogate								
	%Recovery	MRL	MRL Qualifier					Limits
d5-NEtFOSAA	111							70 - 130
13C2 PFHxA	111							70 - 130
13C2 PFDA	117							70 - 130
13C3-GenX	106							70 - 130

Lab Sample ID: 380-100791-B-1-A MSD
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 96290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	50.9		ng/L		101	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	54.8		ng/L		109	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	55.4		ng/L		110	70 - 130	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	54.4		ng/L		108	70 - 130	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	55.7		ng/L		111	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	52.1		ng/L		104	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	54.8		ng/L		109	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	55.6		ng/L		111	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	55.9		ng/L		111	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	55.7		ng/L		111	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	49.1		ng/L		98	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	58.2		ng/L		116	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	54.6		ng/L		109	70 - 130	1	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	51.9		ng/L		103	70 - 130	4	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		50.2	51.3		ng/L		102	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	56.7		ng/L		113	70 - 130	3	30
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	51.3		ng/L		102	70 - 130	2	30

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-100791-B-1-A MSD

Matrix: Water
Analysis Batch: 96368

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA
Prep Batch: 96290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	53.7		ng/L		107	70 - 130	1	30
Surrogate		MSD %Recovery	MSD Qualifier	Limits							
d5-NEtFOSAA		109		70 - 130							
13C2 PFHxA		108		70 - 130							
13C2 PFDA		111		70 - 130							
13C3-GenX		101		70 - 130							

Lab Sample ID: 380-100791-C-1-A MS

Matrix: Water
Analysis Batch: 96368

Client Sample ID: Matrix Spike

Prep Type: Total/NA
Prep Batch: 96290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		49.9	51.2		ng/L		103	70 - 130		
Perfluorooctanesulfonic acid (PFOS)	<2.0		49.9	55.3		ng/L		111	70 - 130		
Perfluoroundecanoic acid (PFUnA)	<2.0		49.9	55.0		ng/L		110	70 - 130		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		49.9	54.2		ng/L		109	70 - 130		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		49.9	53.5		ng/L		107	70 - 130		
Perfluorohexanoic acid (PFHxA)	<2.0		49.9	54.4		ng/L		109	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		49.9	55.8		ng/L		112	70 - 130		
Perfluorooctanoic acid (PFOA)	<2.0		49.9	53.7		ng/L		108	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		49.9	55.2		ng/L		111	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	<2.0		49.9	56.6		ng/L		113	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	<2.0		49.9	48.6		ng/L		97	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		49.9	57.6		ng/L		115	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		49.9	55.1		ng/L		111	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0		49.9	54.1		ng/L		108	70 - 130		
Perfluorotridecanoic acid (PFTDA)	<2.0		49.9	52.8		ng/L		106	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		49.9	55.2		ng/L		111	70 - 130		
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		49.9	52.3		ng/L		105	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		49.9	53.4		ng/L		107	70 - 130		
Surrogate		MS %Recovery	MS Qualifier	Limits							
d5-NEtFOSAA		109		70 - 130							
13C2 PFHxA		107		70 - 130							
13C2 PFDA		111		70 - 130							

QC Sample Results

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-100791-C-1-A MS
Matrix: Water
Analysis Batch: 96368

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 96290

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C3-GenX	102		70 - 130

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

QC Association Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

GC/MS Semi VOA

Prep Batch: 96280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	525.2	
MB 380-96280/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-96280/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-96280/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-96280/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-100842-AL-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-100861-1 DU	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	525.2	

Analysis Batch: 96388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	525.2	96280
MB 380-96280/21-A	Method Blank	Total/NA	Water	525.2	96280
LCS 380-96280/23-A	Lab Control Sample	Total/NA	Water	525.2	96280
LCSD 380-96280/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	96280
MRL 380-96280/22-A	Lab Control Sample	Total/NA	Water	525.2	96280
380-100842-AL-1-A MS	Matrix Spike	Total/NA	Water	525.2	96280
380-100861-1 DU	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	525.2	96280

LCMS

Prep Batch: 96290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1 DW	
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1 DW	
MBL 380-96290/22-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-96290/24-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-96290/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-100791-B-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	
380-100791-C-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	

Analysis Batch: 96368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1	96290
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1	96290
MBL 380-96290/22-A	Method Blank	Total/NA	Water	537.1	96290
LCS 380-96290/24-A	Lab Control Sample	Total/NA	Water	537.1	96290
MRL 380-96290/23-A	Lab Control Sample	Total/NA	Water	537.1	96290
380-100791-B-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	96290
380-100791-C-1-A MS	Matrix Spike	Total/NA	Water	537.1	96290

Prep Batch: 96387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	
MBL 380-96387/20-A	Method Blank	Total/NA	Water	533	
LCS 380-96387/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-96387/21-A	Lab Control Sample	Total/NA	Water	533	
380-101125-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-101125-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

QC Association Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

LCMS

Analysis Batch: 96484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-100861-1	HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	96387
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	96387
MBL 380-96387/20-A	Method Blank	Total/NA	Water	533	96387
LCS 380-96387/22-A	Lab Control Sample	Total/NA	Water	533	96387
MRL 380-96387/21-A	Lab Control Sample	Total/NA	Water	533	96387
380-101125-E-1-A MS	Matrix Spike	Total/NA	Water	533	96387
380-101125-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	96387

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Lab Chronicle

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

Job ID: 380-100861-1
 SDG: 525.2, 533, 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-1

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			96280	OTM3	EA POM	06/24/24 08:48
Total/NA	Analysis	525.2		1	96388	Q8LA	EA POM	06/25/24 12:25
Total/NA	Prep	533			96387	XTD8	EA POM	06/25/24 06:20
Total/NA	Analysis	533		1	96484	Y5FM	EA POM	06/25/24 23:53
Total/NA	Prep	537.1 DW			96290	A5GB	EA POM	06/24/24 09:41
Total/NA	Analysis	537.1		1	96368	SZ9R	EA POM	06/25/24 03:02

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-100861-2

Date Collected: 06/20/24 09:30

Matrix: Water

Date Received: 06/21/24 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			96387	XTD8	EA POM	06/25/24 06:20
Total/NA	Analysis	533		1	96484	Y5FM	EA POM	06/26/24 00:04
Total/NA	Prep	537.1 DW			96290	A5GB	EA POM	06/24/24 09:41
Total/NA	Analysis	537.1		1	96368	SZ9R	EA POM	06/25/24 03:12

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 380-100861-1
 SDG: 525.2, 533, 537.1

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	Terbutylazine
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor

Method Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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



Sample Summary

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

Job ID: 380-100861-1
SDG: 525.2, 533, 537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-100861-1	HALAWA WELLS UNITS 1 & 2	Water	06/20/24 09:30	06/21/24 09:12
380-100861-2	FB: HALAWA WELLS UNITS 1 & 2	Water	06/20/24 09:30	06/21/24 09:12

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia CA 91016
 Phone (626) 386-1100

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-27941-2757 2	
Client Contact: Dr Ron Fenstermacher		E-Mail: Rachelle.Arada@et.eurofins.com		Page: 7 of 7	
Company: City & County of Honolulu		PWSID:		Job #:	
Address: 630 South Beretania Street, Chemistry Lab		Due Date Requested:		Total Number of Containers: <input checked="" type="checkbox"/>	
City: Honolulu		TAT Requested (days):		Analysis Requested	
State, Zip: HI 96843		Compliance Project: Δ No		537 1_DW_PREC 537 1 Full List	
Phone: 808-748-5091 (tel)		PO #: C20525101 exp 05312023		525.2_PREC (MOD) 525plus PLUS TICS	
Email: rfenstermacher@hbws.org		WO #:		8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18	
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		8015B_GRO_LL (MOD) GRO	
Site:		SSON#:		SUBCONTRACT 625 PAH Physis LL (EAL) + TICS	
Sample Identification		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	
MOANALUA WELLS	Sample Date: <input checked="" type="checkbox"/>	Sample Time: <input checked="" type="checkbox"/>	Sample Type (C=Comp, G=grab) <input checked="" type="checkbox"/>	Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)	Preservation Code:
AIEA GULCH WELLS PUMP2				Water	Water
AIEA WELLS PUMPS 1&2 (260)				Water	Water
HALAWA WELLS UNITS 1&2	20-Jun-2024	0930	G	Water	Water
FB MOANALUA WELLS				Water	Water
FB AIEA GULCH WELLS PUMP2				Water	Water
FB AIEA WELLS PUMPS 1&2 (260)				Water	Water
FB HALAWA WELLS UNITS 1&2	20-Jun-2024	0930	G	Water	Water
Possible Hazard Identification		Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Other (specify)				Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
Empty Kit Relinquished by:		Date: 6/20/24 1200		Special Instructions/QC Requirements:	
Relinquished by:		Date/Time: 6/20/24 1200		Method of Shipment: ① 7769 7172 0929	
Relinquished by:		Date/Time:		FED EX ② 7769 7172 0930	
Relinquished by:		Date/Time:		Company: G. RETNER	
Custody Seals Intact Δ Yes Δ No		Date/Time:		Date/Time: 06/21/2024 09:12	
Custody Seal No		Date/Time:		Company: EEFAP	
Colder Temperature (s) °C and Other Remarks: ① 5.0°-0.2° ± 2.2° ② 5.0°-0.2° ± 4.8°		Date/Time:		Company:	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-100861-1
SDG Number: 525.2, 533, 537.1

Login Number: 100861
List Number: 1
Creator: Elyas, Matthew

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	
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	