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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
PFAS: Halawa Shaft Viewing Pool

JOB NUMBER

380-191398-1

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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 Drinking Water and Wastewater West, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW, Water matrices)

Authorization



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Qualifiers

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: 380-191398-1

Job ID: 380-191398-1

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Job Narrative 380-191398-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 1/8/2026 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

PFAS

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: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-191398-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.9		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.5		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-191398-1

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

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		01/09/26 17:43	01/10/26 14:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorooctanesulfonic acid (PFOS)	3.9		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 14:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C6 PFDA	101		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C5 PFHxA	98		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C4 PFHpA	96		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C8 PFOA	98		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C9 PFNA	97		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C7 PFUnA	99		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C2 PFDoA	100		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C4 PFBA	98		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C5 PFPeA	109		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C3 PFBS	97		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C3 PFHxS	103		50 - 200	01/09/26 17:43	01/10/26 14:53	1

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Client Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-191398-1

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	80		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C2-4:2-FTS	114		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C2-6:2-FTS	107		50 - 200	01/09/26 17:43	01/10/26 14:53	1
13C2-8:2-FTS	105		50 - 200	01/09/26 17:43	01/10/26 14:53	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		01/09/26 10:20	01/10/26 14:17	1
Perfluorooctanesulfonic acid (PFOS)	3.5		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			01/09/26 10:20	01/10/26 14:17	1
13C2 PFHxA	119		70 - 130			01/09/26 10:20	01/10/26 14:17	1
13C2 PFDA	104		70 - 130			01/09/26 10:20	01/10/26 14:17	1
13C3-GenX	103		70 - 130			01/09/26 10:20	01/10/26 14:17	1

Client Sample ID: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

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		01/09/26 17:43	01/10/26 15:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1

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Client Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/09/26 17:43	01/10/26 15:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C6 PFDA	104		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C5 PFHxA	101		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C4 PFHpA	103		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C8 PFOA	105		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C9 PFNA	109		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C7 PFUnA	103		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C2 PFDoA	107		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C4 PFBA	98		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C5 PFPeA	102		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C3 PFBS	92		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C3 PFHxS	97		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C8 PFOS	96		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C2-4:2-FTS	105		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C2-6:2-FTS	105		50 - 200	01/09/26 17:43	01/10/26 15:04	1
13C2-8:2-FTS	104		50 - 200	01/09/26 17:43	01/10/26 15:04	1

Client Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

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		01/09/26 10:20	01/10/26 14:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/09/26 10:20	01/10/26 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	92		70 - 130	01/09/26 10:20	01/10/26 14:26	1
13C2 PFHxA	124		70 - 130	01/09/26 10:20	01/10/26 14:26	1
13C2 PFDA	102		70 - 130	01/09/26 10:20	01/10/26 14:26	1
13C3-GenX	89		70 - 130	01/09/26 10:20	01/10/26 14:26	1

Action Limit Summary

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

Job ID: 380-191398-1
 SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-191398-1

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				
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10		2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		ng/L	10		2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10		2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.9		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)	3.5		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)	3.6		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: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

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: 380-191398-1
 SDG: PFAS: Halawa Shaft Viewing Pool

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS	PFHxA	PFDA	GenX
		(70-130)	(70-130)	(70-130)	(70-130)
380-191386-E-1-B MS	Matrix Spike	103	117	108	100
380-191386-F-1-B MSD	Matrix Spike Duplicate	96	107	103	87
380-191398-1	HALAWA SHAFT VIEWING POOL	107	119	104	103
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	92	124	102	89
LCS 380-196780/23-A	Lab Control Sample	97	119	109	98
MBL 380-196780/21-A	Method Blank	97	112	107	98
MRL 380-196780/22-A	Lab Control Sample	101	109	110	99

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: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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)
380-191333-B-1-A MS	Matrix Spike	93	101	99	99	99	103	101	101
380-191333-C-1-A MSD	Matrix Spike Duplicate	98	107	106	104	101	107	105	106
380-191398-1	HALAWA SHAFT VIEWING POOL	90	101	98	96	98	97	99	100
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	89	104	101	103	105	109	103	107
LCS 380-196861/22-A	Lab Control Sample	90	99	98	97	100	103	104	101
MBL 380-196861/20-A	Method Blank	92	102	99	99	100	105	102	104
MRL 380-196861/21-A	Lab Control Sample	90	103	102	100	100	100	104	102

		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)
380-191333-B-1-A MS	Matrix Spike	100	104	90	93	94	102	103	105
380-191333-C-1-A MSD	Matrix Spike Duplicate	100	104	90	97	96	109	99	105
380-191398-1	HALAWA SHAFT VIEWING POOL	98	109	97	103	80	114	107	105
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	98	102	92	97	96	105	105	104
LCS 380-196861/22-A	Lab Control Sample	101	104	93	99	91	106	104	100
MBL 380-196861/20-A	Method Blank	98	100	94	99	97	110	108	109
MRL 380-196861/21-A	Lab Control Sample	96	103	93	98	81	105	101	106

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: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MBL 380-196861/20-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196861

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		01/09/26 17:43	01/10/26 13:15	1

Isotope Dilution	MBL	MBL	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 HFPO-DA	92		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C6 PFDA	102		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C5 PFHxA	99		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C4 PFHpA	99		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C8 PFOA	100		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C9 PFNA	105		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C7 PFUnA	102		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C2 PFDoA	104		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C4 PFBA	98		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C5 PFPeA	100		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C3 PFBS	94		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C3 PFHxS	99		50 - 200	01/09/26 17:43	01/10/26 13:15	1

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QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MBL 380-196861/20-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196861

Isotope Dilution	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C8 PFOS	97		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C2-4:2-FTS	110		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C2-6:2-FTS	108		50 - 200	01/09/26 17:43	01/10/26 13:15	1
13C2-8:2-FTS	109		50 - 200	01/09/26 17:43	01/10/26 13:15	1

Lab Sample ID: LCS 380-196861/22-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	60.9		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	62.5		ng/L		104	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	59.7		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	57.7		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	61.8		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	60.8		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	62.3		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	58.6		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	60.7		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	60.1	59.0		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	63.2		ng/L		105	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	61.9		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	58.7		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	59.1		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	62.9		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	61.5		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	60.8		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	59.6		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.1	62.7		ng/L		104	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	60.5		ng/L		101	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	64.5		ng/L		107	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	59.0		ng/L		98	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	63.5		ng/L		106	70 - 130

QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-196861/22-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	58.9		ng/L		98	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	90		50 - 200				
13C6 PFDA	99		50 - 200				
13C5 PFHxA	98		50 - 200				
13C4 PFHpA	97		50 - 200				
13C8 PFOA	100		50 - 200				
13C9 PFNA	103		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	101		50 - 200				
13C4 PFBA	101		50 - 200				
13C5 PFPeA	104		50 - 200				
13C3 PFBS	93		50 - 200				
13C3 PFHxS	99		50 - 200				
13C8 PFOS	91		50 - 200				
13C2-4:2-FTS	106		50 - 200				
13C2-6:2-FTS	104		50 - 200				
13C2-8:2-FTS	100		50 - 200				

Lab Sample ID: MRL 380-196861/21-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.24	J	ng/L		112	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.47	J	ng/L		123	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.21	J	ng/L		110	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.14	J	ng/L		107	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.56	J	ng/L		127	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.12	J	ng/L		105	50 - 150

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QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-196861/21-A
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.19	J	ng/L		109	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.42	J	ng/L		121	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.29	J	ng/L		114	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.90	J	ng/L		94	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.20	J	ng/L		110	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.29	J	ng/L		114	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.38	J	ng/L		118	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.09	J	ng/L		104	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	90		50 - 200
13C6 PFDA	103		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	100		50 - 200
13C8 PFOA	100		50 - 200
13C9 PFNA	100		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	96		50 - 200
13C5 PFPeA	103		50 - 200
13C3 PFBS	93		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	81		50 - 200
13C2-4:2-FTS	105		50 - 200
13C2-6:2-FTS	101		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: 380-191333-B-1-A MS
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	104		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	114		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	116		ng/L		96	70 - 130

QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-191333-B-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 196937

Prep Batch: 196861

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		121	119		ng/L		99	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	120		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	117		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	116		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	120		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	121		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		121	119		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	112		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	124		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	122		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	119		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	121		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	116		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	112		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	125		ng/L		104	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	119		ng/L		99	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	128		ng/L		106	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		121	114		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	122		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	121		ng/L		100	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	93		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	99		50 - 200
13C4 PFHpA	99		50 - 200
13C8 PFOA	99		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	101		50 - 200
13C4 PFBA	100		50 - 200
13C5 PFPeA	104		50 - 200
13C3 PFBS	90		50 - 200
13C3 PFHxS	93		50 - 200
13C8 PFOS	94		50 - 200

QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-191333-B-1-A MS
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 196861

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	102		50 - 200
13C2-6:2-FTS	103		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: 380-191333-C-1-A MSD
Matrix: Water
Analysis Batch: 196937

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 196861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	105		ng/L		87	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	113		ng/L		94	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	119		ng/L		98	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	121		ng/L		100	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	117		ng/L		97	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		121	118		ng/L		98	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	121		ng/L		101	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	117		ng/L		97	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	120		ng/L		100	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	118		ng/L		98	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		121	117		ng/L		97	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	122		ng/L		101	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		121	120		ng/L		99	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	122		ng/L		101	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		121	119		ng/L		98	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	119		ng/L		98	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	113		ng/L		94	70 - 130	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	122		ng/L		101	70 - 130	5	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	112		ng/L		92	70 - 130	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	127		ng/L		105	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	119		ng/L		98	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	130		ng/L		108	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	113		ng/L		93	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	119		ng/L		98	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	125		ng/L		103	70 - 130	3	30

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QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	98		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	100		50 - 200
13C5 PFPeA	104		50 - 200
13C3 PFBS	90		50 - 200
13C3 PFHxS	97		50 - 200
13C8 PFOS	96		50 - 200
13C2-4:2-FTS	109		50 - 200
13C2-6:2-FTS	99		50 - 200
13C2-8:2-FTS	105		50 - 200

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

Lab Sample ID: MBL 380-196780/21-A
Matrix: Water
Analysis Batch: 196936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196780

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/09/26 10:20	01/10/26 12:22	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	97		70 - 130			01/09/26 10:20	01/10/26 12:22	1
13C2 PFHxA	112		70 - 130			01/09/26 10:20	01/10/26 12:22	1
13C2 PFDA	107		70 - 130			01/09/26 10:20	01/10/26 12:22	1

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QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MBL 380-196780/21-A
Matrix: Water
Analysis Batch: 196936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196780

Surrogate	MBL	MBL	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3-GenX	98		70 - 130	01/09/26 10:20	01/10/26 12:22	1

Lab Sample ID: LCS 380-196780/23-A
Matrix: Water
Analysis Batch: 196936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	25.1	22.7		ng/L		91	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	25.1	25.2		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	22.5		ng/L		90	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	23.2		ng/L		93	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	24.0		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	25.8		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	25.1		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	25.5		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	25.4		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	25.4		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	24.2		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	23.7		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	25.1	24.4		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	26.1		ng/L		104	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	30.0		ng/L		120	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	25.3		ng/L		101	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.7		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	23.7		ng/L		95	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	97		70 - 130
13C2 PFHxA	119		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	98		70 - 130

QC Sample Results

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-196780/22-A
Matrix: Water
Analysis Batch: 196936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196780

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.81	J	ng/L		90	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.05	J	ng/L		102	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.99	J	ng/L		100	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.98	J	ng/L		99	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.11	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.03	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.94	J	ng/L		97	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.37	J	ng/L		118	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.04	J	ng/L		102	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.00	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.80	J	ng/L		90	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	109		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	99		70 - 130

Lab Sample ID: 380-191386-E-1-B MS
Matrix: Water
Analysis Batch: 196936

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 196780

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		25.2	23.2		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	24.7		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	24.4		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	26.0		ng/L		103	70 - 130

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QC Association Summary

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

Job ID: 380-191398-1
 SDG: PFAS: Halawa Shaft Viewing Pool

LCMS

Prep Batch: 196780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-191398-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	537.1 DW	
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	Total/NA	Water	537.1 DW	
MBL 380-196780/21-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-196780/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-196780/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-191386-E-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-191386-F-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Prep Batch: 196861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-191398-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	533	
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	Total/NA	Water	533	
MBL 380-196861/20-A	Method Blank	Total/NA	Water	533	
LCS 380-196861/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-196861/21-A	Lab Control Sample	Total/NA	Water	533	
380-191333-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-191333-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 196936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-191398-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	537.1	196780
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	Total/NA	Water	537.1	196780
MBL 380-196780/21-A	Method Blank	Total/NA	Water	537.1	196780
LCS 380-196780/23-A	Lab Control Sample	Total/NA	Water	537.1	196780
MRL 380-196780/22-A	Lab Control Sample	Total/NA	Water	537.1	196780
380-191386-E-1-B MS	Matrix Spike	Total/NA	Water	537.1	196780
380-191386-F-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	196780

Analysis Batch: 196937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-191398-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	533	196861
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	Total/NA	Water	533	196861
MBL 380-196861/20-A	Method Blank	Total/NA	Water	533	196861
LCS 380-196861/22-A	Lab Control Sample	Total/NA	Water	533	196861
MRL 380-196861/21-A	Lab Control Sample	Total/NA	Water	533	196861
380-191333-B-1-A MS	Matrix Spike	Total/NA	Water	533	196861
380-191333-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	196861

Lab Chronicle

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-191398-1

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			196861	N8NE	EA POM	01/09/26 17:43
Total/NA	Analysis	533		1	196937	M7ML	EA POM	01/10/26 14:53
Total/NA	Prep	537.1 DW			196780	E9PK	EA POM	01/09/26 10:20
Total/NA	Analysis	537.1		1	196936	Y5FM	EA POM	01/10/26 14:17

Client Sample ID: HALAWA SHAFT VIEWING POOL Blank

Lab Sample ID: 380-191398-2

Date Collected: 01/06/26 09:35

Matrix: Water

Date Received: 01/08/26 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			196861	N8NE	EA POM	01/09/26 17:43
Total/NA	Analysis	533		1	196937	M7ML	EA POM	01/10/26 15:04
Total/NA	Prep	537.1 DW			196780	E9PK	EA POM	01/09/26 10:20
Total/NA	Analysis	537.1		1	196936	Y5FM	EA POM	01/10/26 14:26

Laboratory References:

EA POM = Eurofins 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: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Laboratory: Eurofins Pomona

The accreditations/certifications listed below are applicable to this report.

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

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

Method Summary

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

Job ID: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	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 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: 380-191398-1
SDG: PFAS: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-191398-1	HALAWA SHAFT VIEWING POOL	Water	01/06/26 09:35	01/08/26 09:25	Hawaii
380-191398-2	HALAWA SHAFT VIEWING POOL Blank	Water	01/06/26 09:35	01/08/26 09:25	Hawaii

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-191398-1
SDG Number: PFAS: Halawa Shaft Viewing Pool

Login Number: 191398

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Pomona

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

